– MIDDLE EAST @ WAR No.20 –

AIR POWER AND THE ARAB WORLD

1909–1955

VOLUME 1: MILITARY FLYING SERVICES IN THE ARAB COUNTRIES, 1909-1918

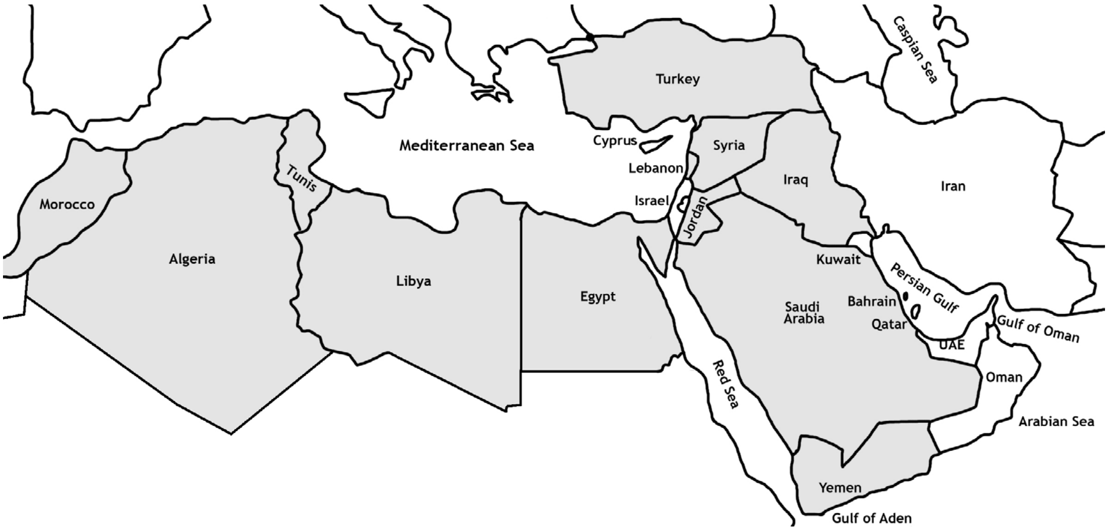
Dr. David Nicolle &
Air Vice Marshal Gabr Ali Gabr

CONTENTS

Acknowledgements 2
Preface 2
Introduction 2

1 Before the First Bombs 6
2 The Italian Invasion of Libya (1911–1914) 14
3 The Formation of Ottoman Air Arms (1911-1914) 26
4 The French Invent Aerial Policing (1909-1914) 36
5 Spaniards over the Rif (1909-1914) 50
6 The First World War in Arab Lands (1914-1918) 57
7 The Ottoman Air Forces and the Arabs 64

Bibliography 86
About the authors 88



Turkey
Caspian Sea
Mediterranean Sea
Cyprus
Syria
Lebanon
Iraq
Iran
Tunis
Morocco
Israel
Jordan
Algeria
Kuwait
Libya
Egypt
Persian Gulf
Saudi Arabia
Bahrain
Qatar
Gulf of Oman
UAE
Red Sea
Oman
Arabian Sea
Yemen
Gulf of Aden

Helion & Company Limited
Unit 8 Amherst Business Centre, Budbrooke Road, Warwick CV34 5WE, England
Tel. 01926 499 619
Email: info@helion.co.uk Website: www.helion.co.uk Twitter: @helionbooks Visit our blog http://blog.helion.co.uk/

Published by Helion & Company 2019
Designed and typeset by Farr out Publications, Wokingham, Berkshire
Cover designed by Paul Hewitt, Battlefield Design (www.battlefield-design.co.uk)
Printed by Henry Ling Ltd, Dorchester, Dorset

Text © Dr David Nicolle & Air Vice-Marshal Dr Gabr Ali Gabr (EAF ret.) 2019
with
Nour Bardai, Tom Cooper, Waleed Miqaati & Amr Safadi
Photographs © author’s collection or as individually credited
Colour profiles © Tom Cooper and Luca Canossa 2019

Every reasonable effort has been made to trace copyright holders and to obtain their permission for the use of copyright material. The author and publisher apologize for any errors or omissions in this work, and would be grateful if notified of any corrections that should be incorporated in future reprints or editions of this book.

ISBN 978-1-915113-46-7

British Library Cataloguing-in-Publication Data.
A catalogue record for this book is available from the British Library.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form, or by any means, electronic, mechanical, photocopying, recording or otherwise, without the express written consent of Helion & Company Limited.

For details of other military history titles published by Helion & Company Limited contact the above address, or visit our website: http://www.helion.co.uk. We always welcome receiving book proposals from prospective authors.

DEDICATION

For Air Commodore Abd al-Moneim Miqaati (8 July 1904–5 April 1982)
in memory of a meeting in Groppi's in 1970

"Bullies, oppressors and all men who do violence to the rights of others are guilty, not only of their own crimes, but also of the corruption they bring into the hearts of their victims" (Allesandro Manzoni, *The Betrothed* (*I Promessi Sposi* 1840; trans, B. Penman 1972).

ACKNOWLEDGEMENTS

So many people have helped in so many ways in the research and long preparation which result in this book that it seems unjust to name but a few. The authors' researches have, in fact, extended over so many decades that many of those men and women who contributed along the way are sadly no longer alive. They include officers and men from several of the air forces which feature in this study, along with their families, descendants and friends, plus journalists and broadcasters from a number of countries and, of course, enthusiasts whose admirable dedication to the history of various Arab air forces not only unearthed a great deal of information but helped to keep the authors' own enthusiasm alive over the years.

In a spirit of fairness it should also be pointed out that a few of these enthusiasts come from "the other side of the hill", in Israel, where they have braved criticism by providing sometimes sensitive information and by also questioning the accepted "facts" as presented by official Israeli sources.

We also want to thank those who helped with translations, especially Ali Tobchi's work on the REAF Operational Diary from the Palestine War (1948-49) which was written in often hurried Arabic handwriting. Furthermore, it was only available in a low definition scan of a "third carbon copy". Finally, we wish to mention the following people, whose contributions were vital: Air Comm. I.H. Gazerine, Air Marshal M.S. el-Hinnawi, Air Comm. A.M. el-Miqaati, Air Marshal Sa'ad el Din Sherif, Air Vice Marshal V.H. Tait, Giani Cattaneo, Capt. Wigdan Fadel, Air Comm. Fouad Kamal, Lon Nordeen, Mrs. Patricia Salti, Mrs. Munira Kafafi, Adli el Shafei, Fouad Sabri, Grp. Capt. Kamal Zaki, Air Marshal Taher Zaki, Sherif Sharmi, Capt. Sherif Abu Zaid, Mrs. Mona Tewfik, Grp. Capt. Usama Sidqi, Vasko Barbic, Fl. Lt. F. Weston, Eric Thomason, and George Agami.

PREFACE

Where the problems and pitfalls of writing about Arab Air Forces and their confrontation with the Israeli Air Force are concerned we can do no better than quote directly from Lon Nordeen's work; *Middle East Air War Overview;*

> The Middle East is a very challenging area to identify air warfare claims and losses. All of the participants (Egypt, Syria, Jordan, Iraq, Lebanon and Israel) have demonstrated superior skills in maintaining security, secrecy and using press reports to paint the best picture for their side. Determining the truth in this region is along the same lines as assembling a jigsaw puzzle; movement of lots of pieces (of information) slowly reveals an image but almost never the whole picture. Unlike Rene Francillon's OVERKILL analysis of North Vietnamese and U.S. air warfare claims, there is no official Arab or Israel document available to use as a reference which is independent and verified. So, the following is an analysis using the best information from a multitude of sources.

INTRODUCTION

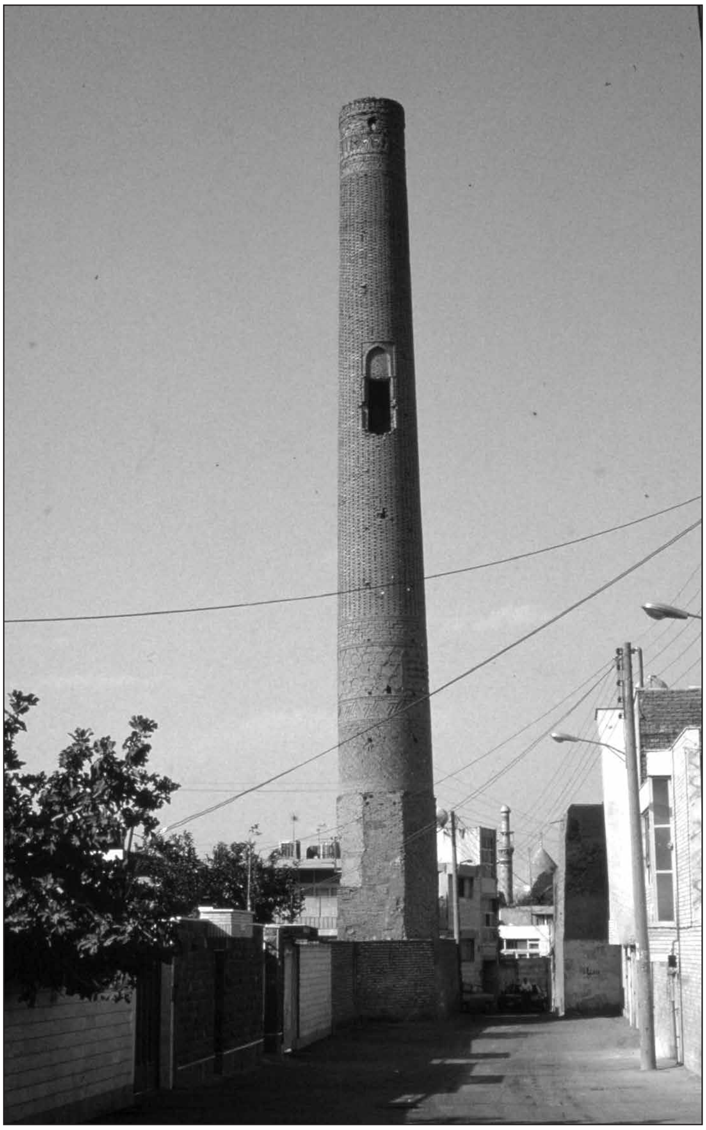
THE HISTORICAL AND CULTURAL BACKGROUND

Almost every advanced civilization seems to have some claim to having "invented" manned flight, or at least to have played an active part in furthering man's dream of flight. Islamic civilization is no exception and, in fact, has a better claim than many. This is largely because Islamic culture in its medieval golden age was characterized by a spirit of scientific enquiry, openness to outside ideas in the fields of science and technology, and a remarkable spirit of individual adventure. As a result, the list of those who attempted to emulate the birds, with greater or lesser success, included men who spoke Arabic, Persian or Turkish, or whose origins lay within the Muslim-ruled regions of western Europe.

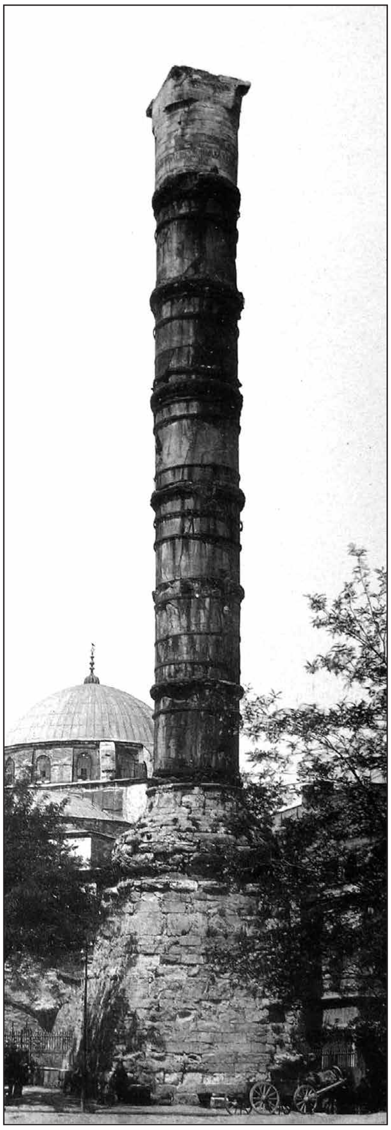
An earlier carved wooden "model aeroplane" in the shape of a dove, found by archaeologists in a 3rd or 4th century AD context in Egypt, should probably be dismissed. In contrast, the efforts of a Muslim Andalusian from Ronda cannot be ignored. Abbas Ibn Firnas was of North African family origin, and he earned fame as a physician, a poet, a scientist who experimented with making glass from crushed stones instead of sand, and as the inventor of a musical metronome. He also constructed a flying device in his home. This Abbas Ibn Firnas died in 887 AD but not, it should be noted, as a result of his attempts to fly. In fact his flying device had feathers and an apparent frame with wings large and flexible enough for Ibn Firnas to glide a significant distance after jumping from a cliff. Abbas even returned – more or less – to his starting point. However, he then landed heavily and was lucky to escape with broken bones and subsequently attributed his failure to not having studied how birds use their tails as well as their wings to control their landing.

The fame of Abbas Ibn Firnas endured in his Andalusian homeland and several centuries later the chronicler Al-Maqqari noted that;

> The aptitude of the Andalusians for all sorts of sciences will be likewise acknowledged by every reader conversant with their history and literature.... Abu-l-'Abbas Qasim Ibn Firnas the Physician.... [made very curious experiments including trying to fly]. He covered himself with feathers for the purpose, attached a couple of wings to his body and, getting on an eminence, flung himself down into the air, when, according to the testimony of several trustworthy writers who witnessed the performance, he flew to a considerable distance, as if he had been a bird, but in alighting again at the place whence he had started, his back was very much hurt, for not known that birds when they alight come down upon their tails, he forgot to provide himself with one.



The minaret in Nishapur from which Ismail al-Jawhari unsuccessfully attempted to fly in 1010 AD no longer exists, but it is believed to have looked similar to the Chehel Doktaran minaret in Isfahan, which was built a little over a century later. (author's photograph)



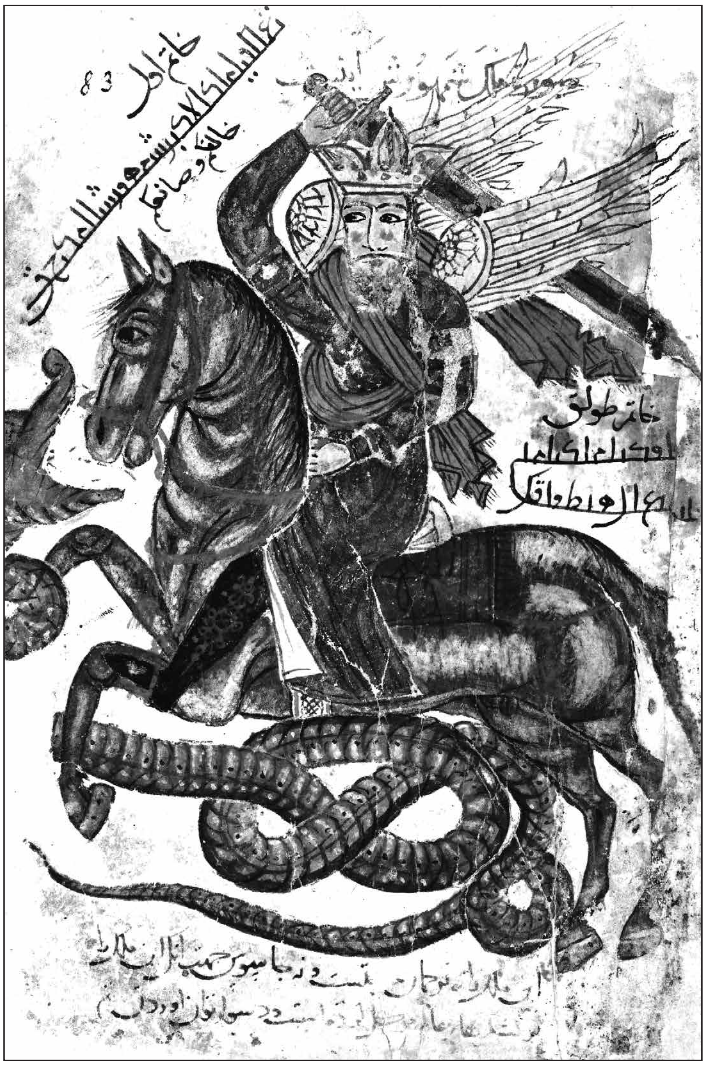
When Siraj al-Din Doğu'u launched himself from the top of the Column of Constantine in Constantinople (now Istanbul) in 1159 or 1162 he reportedly soared for some distance before losing control and falling to his death. This photograph of the Column was taken in 1902.

Within little more than a century of Ibn Firnas's near fatal experiment, his fame had reached Anglo-Saxon England where a certain Benedictine monk of Malmesbury Abbey, by the name of Elmer, tried to do the same thing a few decades before the Norman Conquest. Unfortunately, the result was much the same, Elmer gliding about a furlong (over 230 metres or 220 yards) before losing control, falling, breaking both his legs and being lame for the rest of his life.

This seems to have happened in 1006 AD, so Elmer of Malmesbury was probably inspired by Abbas Ibn Firnas rather than by another Muslim scientist who was killed during a different attempt to fly in distant eastern Iran, either three years before Elmer's adventure or two years after it. He was Ismail al-Jawhari whom both Iranians and Turks claim as their own. Better known as a linguist, calligrapher and scientist, Ismail al-Jawhari (or Cevheri in modern Turkish) was born and educated in Otrar Farab, in what is now Turkistan, and completed his primary education there. He then travelled around Iraq, south-eastern Turkey, Syria and Arabia to improve his Arabic before teaching at Nishapur, in one of the most ancient universities in the world in what is now eastern Iran. Apart from writing dictionaries of Arabic and Turkish for Persian speakers, al-Jawhari took a keen interest in the flight of birds and "the resistance of the air" – in other words he was a very early student of aerodynamics. Sadly a resulting practical experiment resulted in a fatal fall from the minaret of the Great Mosque in Nishapur around 1010 AD.

The last and perhaps least known of these brave or foolhardy pioneers was Siraj al-Din Dogu'u who went to the Byzantine capital of Constantinople (now Istanbul) to take part in festivities marking a visit by Kilij Arslan, ruler of the neighbouring Saljuq Turkish state in Anatolia, in 1159 or 1162 AD. Siraj al-Din launched himself from the top of a huge column in Constantinople, probably not the Hippodrome column as often thought but the Column of Constantine which had a flat top. He used a "sail-like" cloak or paragliding wings, or a fabric balloon containing lighter-than-air gas or hot air. After briefly soaring, Ismail's device failed and he fell to the ground, fatally injured. Siraj al-Din may have been able to get on top of this column because the Byzantine Emperor Manual (ruled 1143-80 AD) was having the fallen statue of Emperor Constantine replaced, this having been blown down in a gale in 1106 AD.

In all these cases, the chronicles only recorded their final and sometimes fatal failures; not the perhaps more encouraging preliminary experiments. No further attempts at flight were recorded in the Islamic world which was now losing much of its spirit of scientific adventure. Instead the idea of flight by intelligent

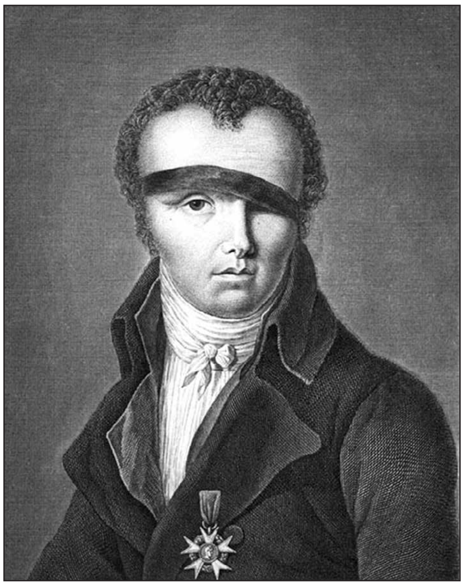


Shamhurash al-Tayyar (Shamhurash the Flyer) is one of the *jinn* (genii) and is shown here fighting a dragon in a manuscript from what is now central Turkey, made in 1272 AD. In Islamic tradition *jinni* and humans could be good or evil, Muslim or a non-believer. (Bib. Nat. Ms. Anc. Fonds Pers. 174, f.83, Paris)

beings was left to myth and legend. Within the Islamic world this often concerned Shamhurish al-Tayyar, "Shamhurish the Flyer", a *jinn* (genii) who had wings and was ruler of the planet Jupiter.

The later 18th century saw a craze for flying in hot-air balloons sweep across Europe and there were said to be several such flights in the Ottoman Empire. Most seem to be apocryphal, or at least failed to impress the Turks who saw no practical application for such "circus acts". However, in 1785 a report appeared in the "Gentleman's Magazine" published in London which claimed that a Persian scientist or doctor made some sort of balloon which took up two individuals – in reality more likely animals – from the Palace of Sultan Abd al-Hamid III (reigned 1775-1789 AD). They were supposedly carried "thirty leagues" (about 120 km) but terrified the local inhabitants when they eventually came to earth. Eventually the man in charge of this place was brought and he had the balloon secured. It was apparently sent back to the Sultan's palace before being hung up in the Aya Sofia Mosque.

The first confirmed balloon ascents in Arab territory were during Napoleon's brief occupation of Egypt. One was supervised by Jacques Conté, a French painter and inventor of the lead pencil. On 30 November 1798 his experiment was witnessed by the local chronicler, Shaykh Abd al-Rahman al-Jabarti who wrote;



The first confirmed balloon ascent in the Arab world was organized by the French scientist Nicolas-Jacques Conté who had accompanied Napoleon's expedition to Egypt. Fortunately the hot-air balloon was unmanned when it caught fire and fell to earth, confirming the Egyptian scholar Shaykh Abd al-Rahman al-Jabarti's opinion that the European invaders were boastful infidels.

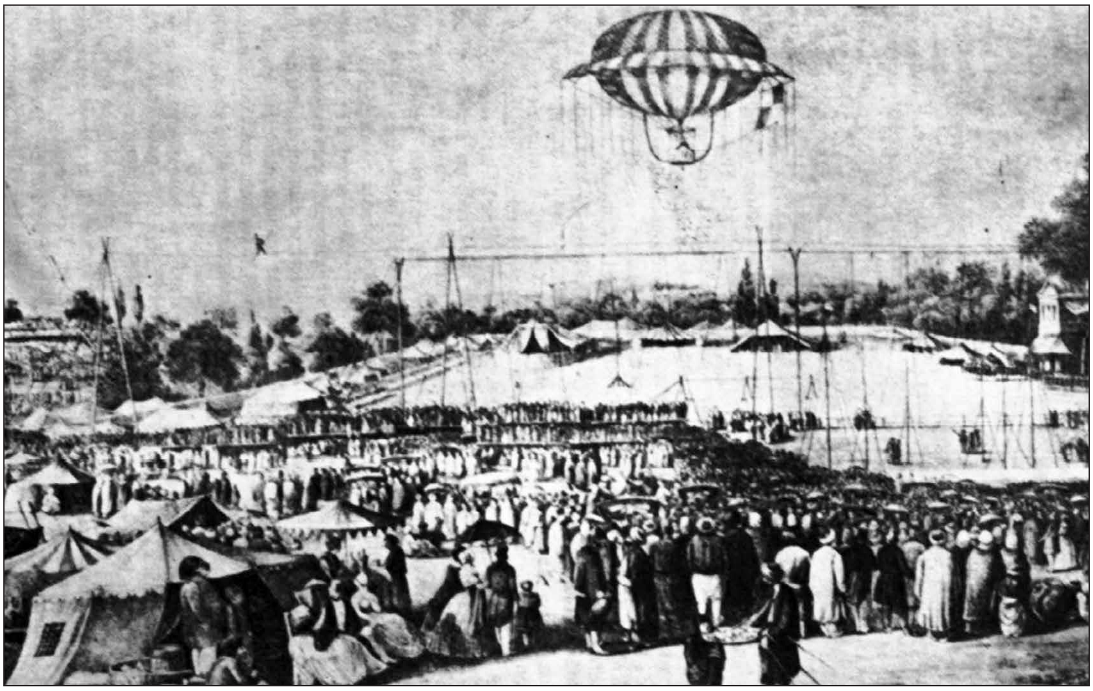
> In the afternoon, both Egyptians and Frenchmen congregated on Ezbakiyah Square. I was there to. I saw a piece of canvas like a tent, suspended from a mast. That piece of canvas was tricoloured. There was a large cup in which a wick was to be found. This cup was suspended from a mast by means of a chain. On top (of the balloon) was a ring to which cords were attached, the opposite ends being fastened to the roofs of the neighbouring houses. One hour after the afternoon prayer, the wick was lit. Smoke entered the piece of canvas and inflated it. The piece of canvas filled out like a great sphere.... The cords were then cut and the sphere ascended into the heavens, gently floating away in the direction of the wind.

Unfortunately, the balloon then caught fire and fell. Some of the Egyptians assumed it was an incendiary weapon to burn enemy towns. Al-Jabarti was most unimpressed;

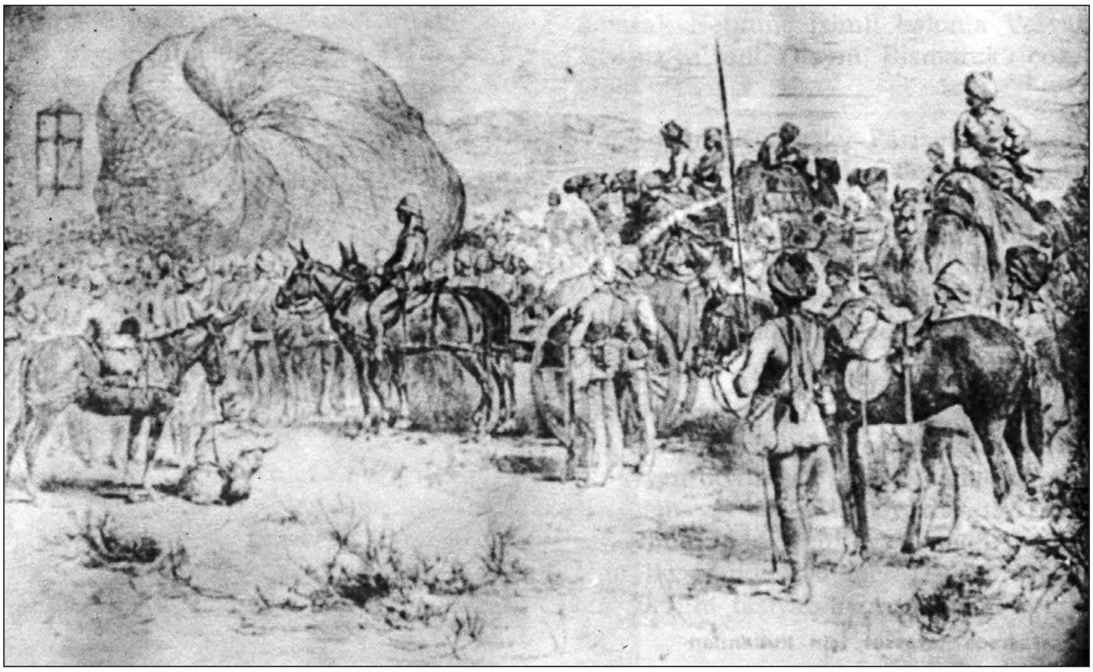
> When the balloon fell, the French were red-faced with shame, for it was not a vessel with which one could undertake aerial voyages from one country to another, as they had claimed, but a simple kite like those that our farrashes ("foolish butterfly-minded people") launch on weddings and public festivals.

A later balloon ascent on 14 January 1799 was slightly more successful, but al-Jabarti still interpreted it as what he regarded as an example of European boastfulness.

Attitudes changed by the later 19th century when the technology was also more reliable. A series of crushing military setbacks, losses of territory and foreign occupations meant that much of the Muslim world was now in the mood for modernization, especially when it came to military matters. Nowhere was this more obvious than in Egypt where Muhammad Ali's rule as an autonomous, virtually independent and often rebellious vassal of the Ottoman Sultan led to a programme of emphatic modernization. This was based upon a new army and navy supported by new industries, a new administration, a new education system and to some extent new cultural priorities. In fact, is has been said by one historian that, "the



During the age of "balloon fever", a number of ascents were reportedly made within the Ottoman Empire. One of those which really did happen took place in Istanbul in 1845.



British Army Royal Engineers struggling with a partially inflated observation balloon in the Sudan in 1885, watched by bemused British Indian and Egyptian troops.

army was more than merely the prime element in the state, it was the centre of everything, the pivot of national life".

Even so, until Muhammad Ali's grandson, the Khedive Ismail, came to the throne in 1863 AD, officers of Egyptian origin could not rise above the rank of captain while men from families of Turkish origin and those descended from the earlier Mamluk ruling elite monopolized the higher ranks. Nevertheless, an officer's salary was reasonably good, his job moderately secure and his status increasing in a country which had not produced an indigenous military elite for centuries. In fact, the armed forces created by Muhammad Ali and his successors gradually led to the emergence of a new Egyptian officer class which then formed a military and in some respects almost feudal elite, though not an aristocracy. Unfortunately, a new and powerful class of big landowners also emerged. Descended from Muhammad Ali's senior officers and government administrators, most of these families clung proudly to their Turkish or Circassian and certainly not "native Egyptian" family origins while at the same time being fiercely patriotic as Egypt's ruling class. Herein lay the seeds of future social and political tensions, and eventually to revolution. Meanwhile similar, though generally less dramatic, social and political processes were under way in other parts of the Arab world including Iraq, Syria, Lebanon and parts of North Africa.

The system built by the Muhammad Ali dynasty eventually proved over-ambitious and financially unstable, leading to humiliation at the hands of foreign financiers and governments. This in turn led to nationalist resentment, a military coup led by military officers of largely indigenous Egyptian origin, followed by British invasion and occupation in 1882. Three years later a unit of Royal Engineer balloonists with three balloons and equipment for producing hydrogen gas joined a British attempt to regain control of the Red Sea coastal area of Sudan for the now puppet Khedive of Egypt. Facing them were the numerous remarkably well organized and disciplined but hopelessly ill-equipped troops of the self-proclaimed Mahdi, Muhammad Ahmad Ibn Abd Allah. The latter died in 1885, to be succeeded by his deputy, Abdallahi Ibn Muhammad. As part of what came to be known as the Suakin Expedition, these British military balloonists are believed to have been the first to use pressurized hydrogen gas stored in metal containers during an active campaign.

Sadly, the British occupation of Egypt, closely followed by that of the Sudan, took place at the high-water mark of British imperial self-belief, arrogance and colonial racism. Late Victorian British imperialism was no longer motivated primarily by financial greed and lust for glory. It now had at its heart a paternalistic belief in Britain's duty to bring what it saw as civilization to those parts of the world seen by most Europeans and Americans as backward or benighted. The term "white man's burden" may make modern readers cringe, but at the time of the British occupation of Egypt, and indeed of the French conquest and occupation of much of North

Africa, it was regarded by the majority of Westerners as a noble and often religiously motivated duty. Not surprisingly, therefore, its results proved as mixed and complex in the Arab world as they were elsewhere in the world.

1

BEFORE THE FIRST BOMBS

Most historical studies of this period concentrate on the political, economic and social results of Western imperialism. In British-ruled Egypt, for example, genuine efforts were made to develop some sort of representative government through a real if limited democracy. Within a very few years of the British occupation, new sensitivities and what one might call an early emergence of anti-colonialist sentiments had their influence upon British actions in Egypt. Meanwhile the country remained nominally a province of the Turkish Ottoman Empire, and Lord Frederick Dufferin, the British ambassador in the Ottoman capital of Constantinople (Istanbul), was sent to draw up a report on the situation in Egypt. He recognised the need for Britain to come to terms with rising nationalism, not only in a reformed and restructured Egyptian Army but in Egyptian society as a whole, especially amongst its small but expanding educated class.

From then until 1914 tensions persisted between competing centres of power such as the residence of the British Proconsul, the Palace of the Khedives or autonomous rulers of Egypt, and an increasingly assertive Egyptian Parliament. The much reduced but now more efficient Egyptian Army (the Egyptian Navy had been entirely disbanded) was buffeted between these three powers. Everyone seemed to accept that the Army had been genuinely reformed by the British, but such improvements were nevertheless imposed by an unwelcome foreign occupier. Thus they were appreciated and resented at the same time – a feature which would persist until at least 1952.

Even in modern times some Egyptian historians, especially those from a military background, have highlighted the negative aspects of British control of the Egyptian armed forces during these and subsequent decades. For example, Air Comm. Ali Muhammad Labib in his history of the Egyptian Air Force published in 1977, stated that;

Sudanese soldiers of the Egyptian Army in the Anglo-Egyptian Sudan at the start of the 20th century. (Egyptian Geographical Society photograph)

> The English (sic.) occupied Egypt in 1882 and ensured that its army stayed small and weak and dependent on her against a foreign threat. The high command was given to British, lower command to Turkish officers. The Turkish language was made the official language for giving orders and communication until the 1930s. The occupiers made sure the army's number did not exceed 10,000 and was equipped with obsolete weaponry. This did not deter the young Egyptian officers' enthusiasm for wanting independence and in building their own force.

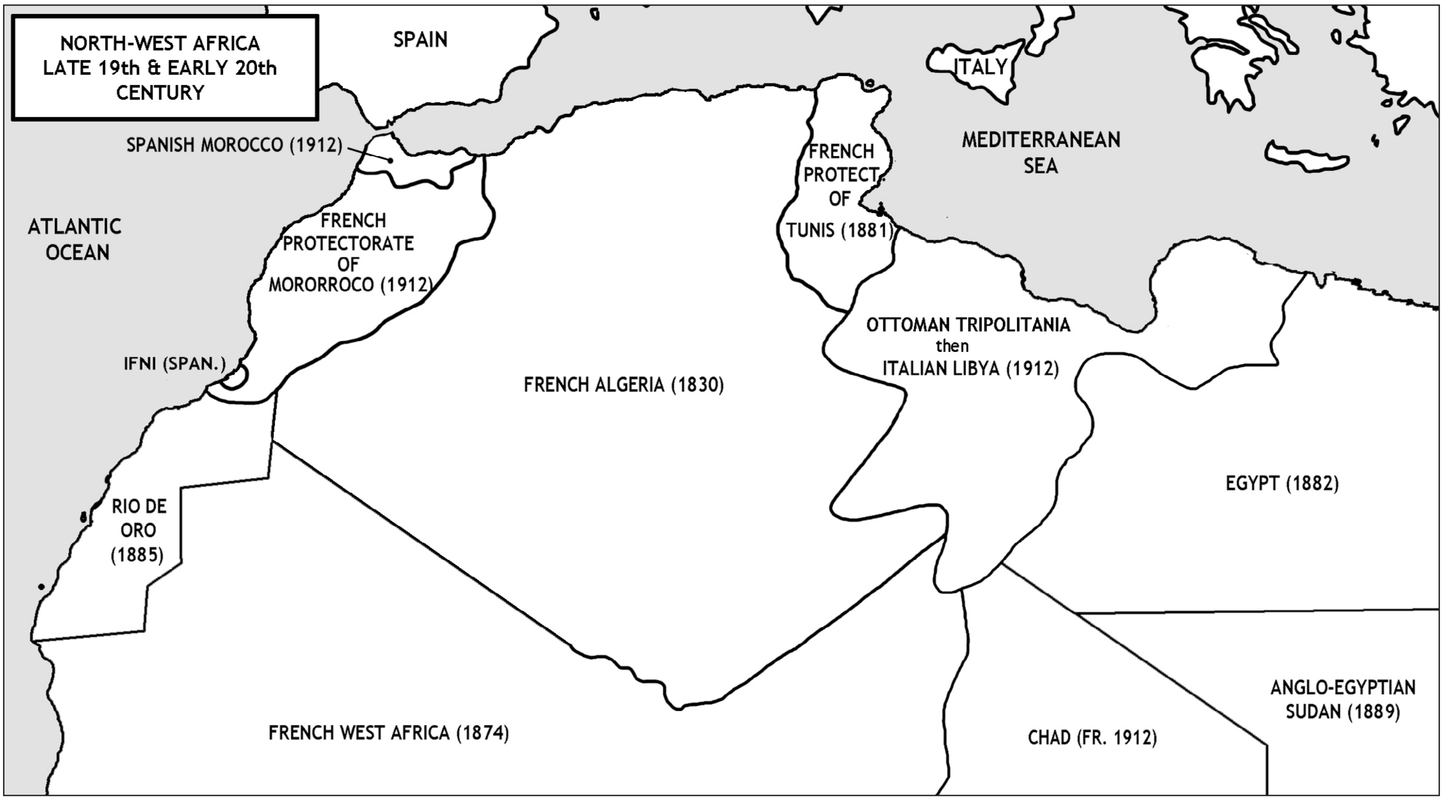
In practice both the Egyptian and British authorities faced a significant problem. Egypt still lacked the sort of deeply rooted aristocratic military tradition seen in England and France, or the almost feudal recruiting ground for professional soldiers found in Germany until 1945. In the opinion of the eminent historian P.J. Vatikiotis, this meant that for decades to come the Egyptian officer corps; "was not fashioned by an elite with a corporate ethos and links with a parallel civilian class in society". In effect, the Egyptian officer corps was in danger of becoming a clique or a self-perpetuating, almost self-sufficient and potentially isolated, military class within broader society.

The dangers had been foreseen by at least one member of Egypt's traditional land-owning rural elite at the time of the First World War who was identified only as a "*distinguished Egyptian politician – the squire of a village on the outskirts of Cairo*" by W. Wedgwood Benn (Viscount Stansgate). He himself was the father of Britain's famous left-wing politician Tony Benn. Viscount Stansgate quoted the views of this unnamed member of the old pasha class in an account of his own experiences as a pilot in the Middle East during the First World War.

This "Egyptian gentleman" complained strongly about the sort of people currently being promoted to public positions and in the Army, whom he described as;

> The sons of donkey men. It was a great mistake to put such men into responsible public positions. They could not possibly command the respect of the common people. And then again, officers for the Army? If there was one class of service it was necessary to reserve for "gentlemen" it was the service of commissioned rank. The work they were called upon to do necessitated them having a social standing which marked them off clearly from the proletariat. I wonder what the exponent of the same view at home [Britain] thinks of the idea as interpreted by an Egyptian. What is his opinion of the fighting qualities, for instance, of the Egyptian officer as compared to the Sudanese battalions who, whatever their claims may be, can certainly lay no claim to be "gentlemen"? "Stock [family origins] tells" was the point with my Pasha friend. It is no uncommon argument in our own [British] politics. Is it any more true here than there?"

In practice a remarkable variety of men sought careers as officers in the Egyptian military at this time. One such was Iskander Abdo Agami, a Christian whose family came from Syria to seek its fortune in British-dominated Egypt. There was no military tradition in the Agami family who had been silk weavers in Damascus. In fact Iskander's older brother was already a medical doctor while he himself studied medicine in the American University in Beirut



A map of north-west Africa as of late 19th and early 20th Century, when the area was 'distributed' between four major European imperial powers. (Map by Tom Cooper)

before returning to Egypt. There he joined the Army around 1902. It is not known why he joined the military but after a varied and eventful career in the Royal Medical Corps, Iskander rose to the rank of Captain in 1915 and Major in the 1920s.

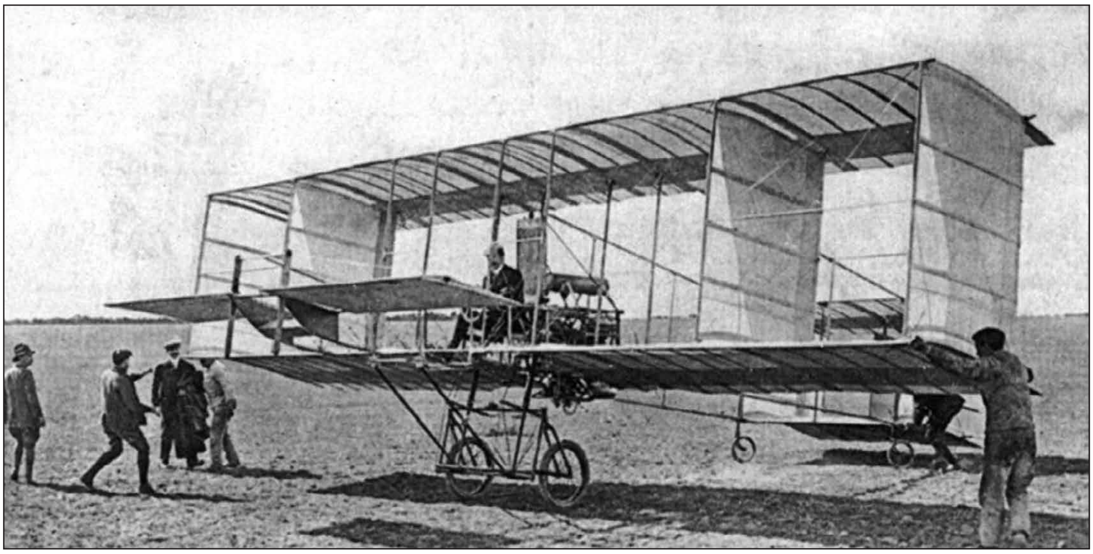
Before the outbreak of the First World War, Iskander Abdo Agami mostly served in Sudan where he not only caught malaria, but had a potentially lethal confrontation with Belgian troops on the disputed frontier between the Egyptian Sudan and Belgian Congo around 1907. Lt. Iskander Abdo Agami had been sent with a small unit to cross a river in what seems to have been a political demonstration, staking a claim probably when the frontier was still not clearly defined. The Berlin Conference of 1885 had agreed that the Nile-Congo watershed would form the boundary between the Anglo-Egyptian Sudan and what became the Belgian Congo. Under another agreement of 12 May 1894, between Britain and King Leopold II of Belgium, the sphere of influence of Leopold's Congo Free State was limited to "a frontier following the 30th meridian east of Greenwich up to its intersection by the watershed between the Nile and the Congo, and thence following the watershed in a northerly and north-westerly direction".

Unfortunately, identifying the precise location of the watershed remained extremely difficult. The normal technique was to march along a compass bearing until a stream was reached, then to follow it upstream to its ultimate source. However, this was often a marsh and so the exact location of the water-source remained undefined. Small wonder that Iskander Agami caught malaria during his Sudanese service. Work was still being carried out on the definition of this frontier in the early 1920s. Lt. Agami was the only officer with an Egyptian Sergeant Major and about twelve soldiers, plus Sudanese porters. On his way from Khartoum to the border he went through areas where he treated the sick amongst the Dinka and Shilluk tribes. At night, they set up camp around fires to keep wild animals away. There was a Belgian fort nearby, on the other bank of the river close to where Iskander Agami and his men made camp. Here the garrison commandant was also a doctor which made negotiations easier. In fact, the Belgian Army doctor agreed that Agami could cross and then return while his men would not open fire. Thus, there was no clash of arms. It seems that Lt. Agami took his NCO and a small number of soldiers on this demonstration of Egyptian territorial claim, but left the rest of his soldiers with the porters.

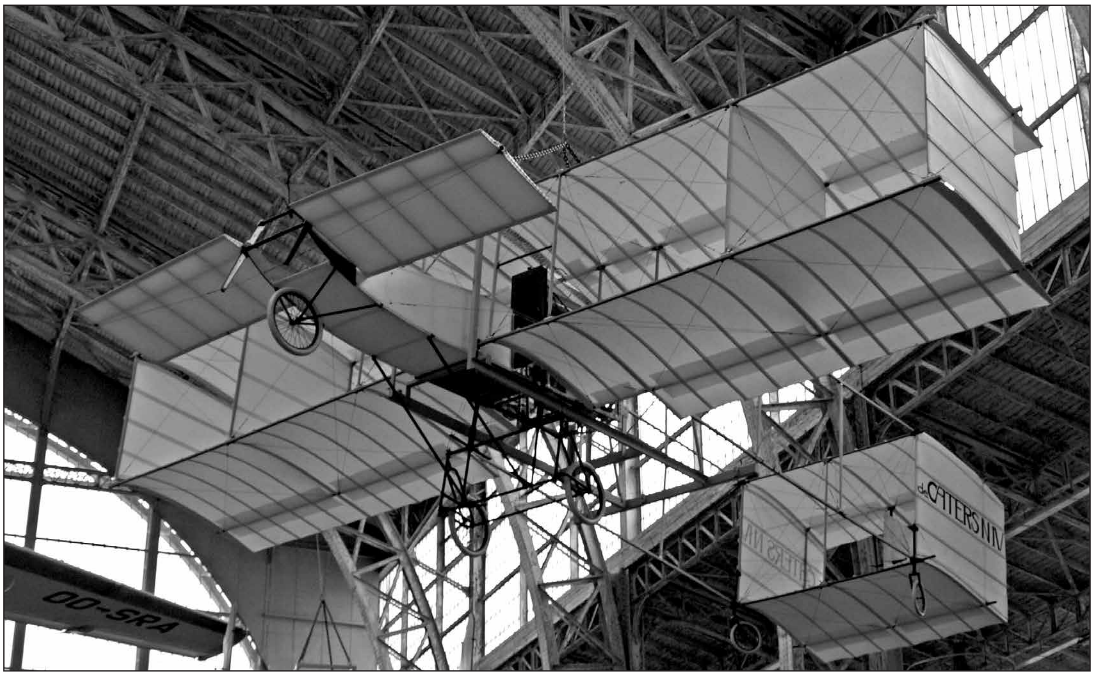
During the First World War, Captain Iskander Agami would be attached to Gen. Allenby's force in Palestine where some of his colleagues become the first Egyptian troops to take part in aerial warfare. Many other men from a large part of the Arab world would be on the receiving end of this new form of conflict while a select handful of the next generation of officers would go on to create the first Arab air forces.

As it happened the undefined south-western and western frontiers of the Egyptian Sudan would result in the Egyptian Army's first official experience of campaigning with air support during its expedition against Sultan Ali Dinar of Darfur (see Volume 2) but before the outbreak of war both the British and Egyptian governments wanted peaceful relations with the still independent ruler of Darfur. In fact, London and Cairo were currently more concerned about growing French influence over Ali Dinar whose territory formed a buffer between French and British "imperial zones". At the same time Sultan Ali Dinar was himself having trouble with supposedly subordinate tribes within his own territory. Local tensions and imperial rivalries would, of course, soon be swept aside in the maelstrom of the Great War; a maelstrom which would also render Egyptian and other Arab interests virtually irrelevant in the warring capitals of Europe.

During these decades changes were already under way in Arab provinces which were under actual Ottoman Turkish rule. Yet it was in nominally Ottoman Egypt that these changes were most obvious. After 1882 Egypt changed from a feudal state to



The Belgian pioneer aviator, Baron Pierre de Caters, made the first flight in the Arab world, taking off in his Voisin from Abbasiya on the outskirts of Cairo on 15 December 1909, though he was only airborne for about three minutes.



An exact replica of one of Pierre de Caters’Voisins, called the N IV, is nowdisplayed in the Belgian Royal Museum of the Armed Forces in Brussels. (author’s photograph)

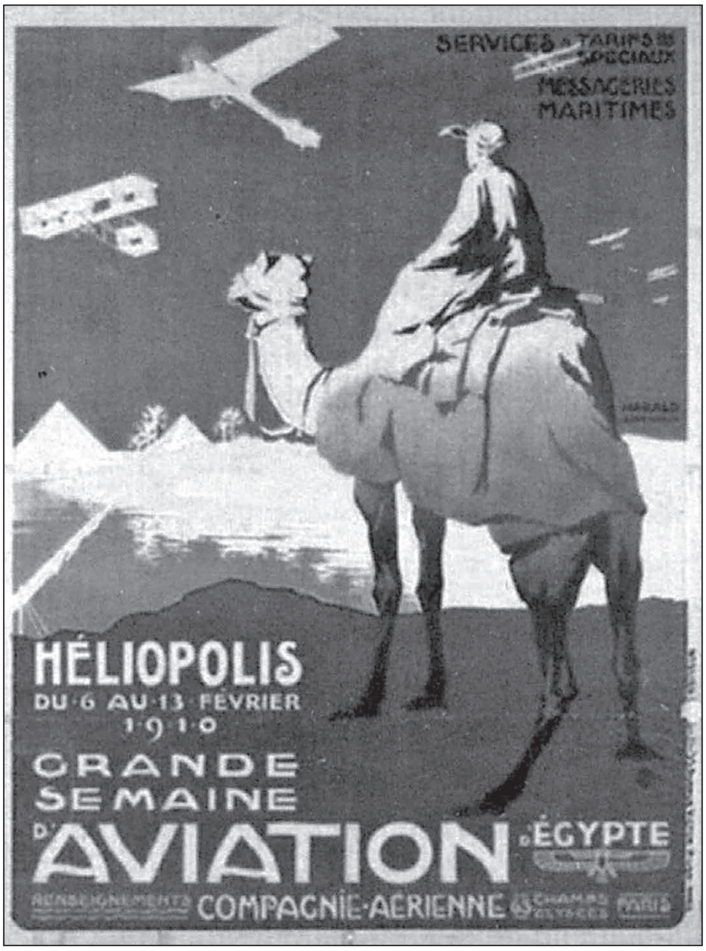
one characterised by order and increasing prosperity, yet it also remained very authoritarian under a Khedive and government who were themselves under often insensitive British domination. Then came the emphatically nationalist and modernising Young Turk Revolution in the rest of the Ottoman Empire. Within Egypt there was widespread admiration for this Young Turk movement and subsequent Young Turk government, though still mixed with Egyptian and even Arab nationalist feelings. As far as Egypt’s Army was concerned this led to mixed emotions with some young Egyptians – not only those of Turkish family origins – still choosing a career in the Ottoman Army as an alternative to a career in Egypt’s own British-dominated Army.

The complex relationship between the Ottoman Empire and its nominally vassal province of Egypt also had interesting results for the Egyptian armed forces. Some seemed insignificant at the time but had an impact upon greater events a few years later. For example, in 1904 the Turks sent a garrison to Sollum, close to the Libyan-Egyptian frontier, to assert the Ottoman Sultan’s rights to the Gulf of Sollum and thus forestall any Anglo-Egyptian claim. However, after the Italian invasion of Libya in 1911, the fort at Sollum was handed over to the British and Egyptians rather than allowing the Italians to take it. Thereafter events in this little frontier town would impact the Egyptian armed forces during the First World War and, indeed, during the Second World War.

While several balloon ascents by Italians and others in Constantinople (Istanbul) in the late 19th and early 20th centuries raised enthusiasm for the new science of flight in the Ottoman capital, similar enthusiasm would emerge in Cairo which was already the intellectual and cultural capital of the Arab world. The year 1909 could be seen as the real birth of aviation in Egypt, initially in November when a Blériot XI was displayed in Alexandria, though only on the ground. A few weeks later, after a sequence of technical problems, a defective propeller and Egypt’s strong winter winds, the famous Belgian pilot Baron Pierre de Caters made the first powered flight in Egypt. He took off from the Cairo suburb of Abbasiya in his Voisin on 15 December and although this first flight lasted only three minutes it was followed by others including one in which De Caters took up two female passengers. In fact women would thereafter play an unexpectedly prominent role in the story of Egyptian aviation.

The Heliopolis Aviation Week had already been announced by the English language *Egyptian Gazette* newspaper on 13 October 1909; 150,000 French francs being offered in prize money to the most successful participants. The location of a new airfield on a polo ground in the fashionable Cairo suburb of Heliopolis was selected following advice from French experts and in fact Heliopolis Aerodrome would subsequently play a major role in the history of Egyptian and broader Arab aviation. This “old” Heliopolis airfield lay between what are now the Egyptian Air Defense House and the Ministry of Defense and, although no longer an airfield and largely built up, it remains a mostly a closed military area. However, “old” Heliopolis aerodrome was not the same as Heliopolis al-Jadida or “new” Heliopolis which would become better known as Almaza – the birthplace of the Egyptian Air Force.

Baron de Caters left Egypt before the Heliopolis Aviation Week which was organised with help from the Royal Egyptian Automobile

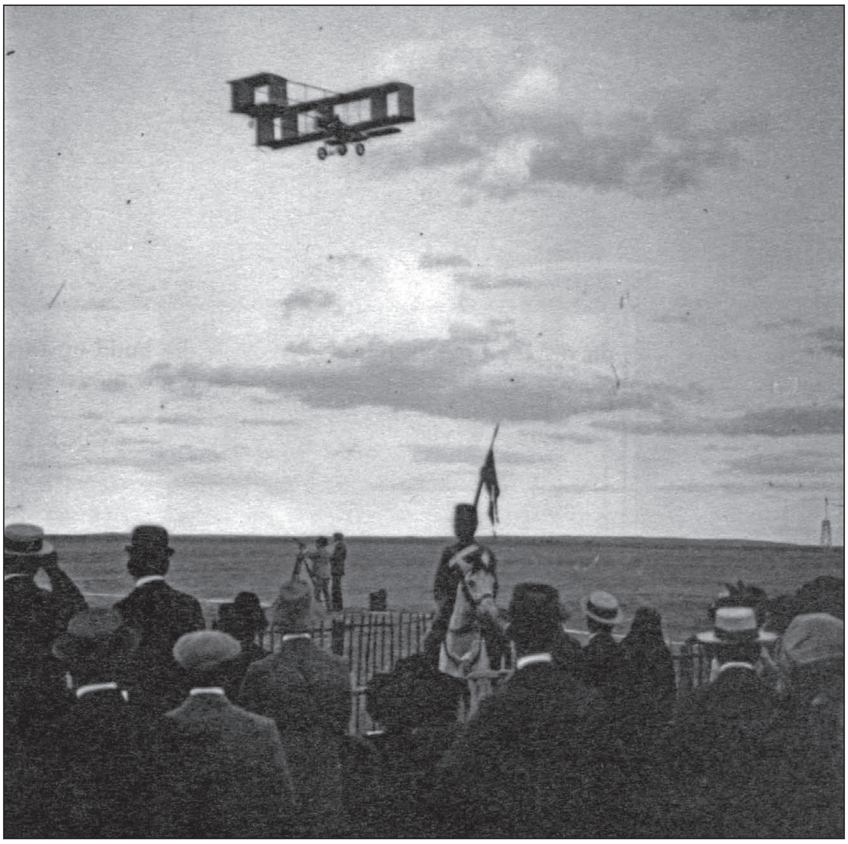


An advertising poster for the Heliopolis Air Meeting, held from the 6 to the 13 February 1910, at what was then the north-eastern outskirts of an already fast expanding city of Cairo.

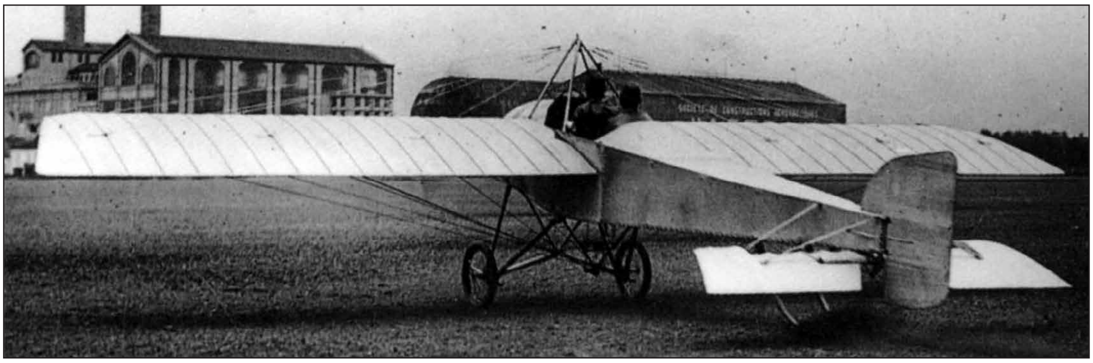
The beautiful Elise Raymonde Deroche, who had adopted the stage name of Baroness de Laroche, was the first woman to fly in Egypt. She took part in the Heliopolis Aviation Week of 1910 in her Standard Voisin and eventually held several flying records, including two altitude and one distance record for female aviators.

Club. It was also supported by Egyptian businessmen and politicians including a former Prime Minister. This first Egyptian air meeting ran from 6 to 13 February 1910 and the Khedive, Abbas Hilmy II, attended the first day accompanied by a splendid cavalry escort and entourage.

The main draw was the challenge of flying from Heliopolis to the Pyramids of Giza and back. A direct line of flight would have taken pilots over the heart of Cairo while a more circuitous route would still take them over the outskirts of an already huge and rapidly expanding city. Any route would mean that hundreds of thousands of people would see aeroplanes in flight which was, of course, the main purpose of the exercise. Twelve aviators brought eighteen aeroplanes to Egypt though not all of them succeeded in making it around the Pyramids. They included some of the best-known pilots of the day, along with several of the most famous types of flying machine. Unfortunately Britain's representative, Mortimer Singer, was injured in a crash and the English press bemoaned this as a blow to British prestige. The better-known French pilot Hubert Latham was also hurt, though not seriously. Both countries feared a loss of prestige but France was still represented by seven other aviators, the USA, the Netherlands and Germany each being represented by one pilot. Matters of prestige would bedevil aviation in the Arab World and the wider Middle East for many decades, and to some extent still do. For the people of Cairo, however, it was the flying itself which caught the imagination of Egyptian newspapers while back in London the *Pall Mall Gazette* seemed embedded in archaic imperialist and racist attitudes, stating that; "The Arab who would now fly for his life at the sight on an aeroplane will within a year or two be as indifferent



A Standard Voisin flying past a largely European crowd of spectators and a lancer of the Cairo Mounted Police at the Heliopolis Aviation Week in February 1910. (EAF Museum photograph)



Pierre Daucourt and his mechanic Henri Roux leaving Paris in a Morane-Borel Type 1913 monoplane on 30 October 1913. They were attempting to be the first to fly from the French capital to the Egyptian capital, but their aeroplane was destroyed by an accidental fire in what is now south-central Turkey. (Opdycke Collection).

During the winter of 1913-14 the British aviator, Frank McClean and his team took up the challenge of flying from Cairo to Khartoum. Their aeroplane was a Short S.80 seaplane, which meant that they had to following the meandering course of the river Nile. Here Frank McClean is seen seated in the rear cockpit of the Short.

to the winged carriages as he is now to the tall, slender sails of the boats that plough the Nile".

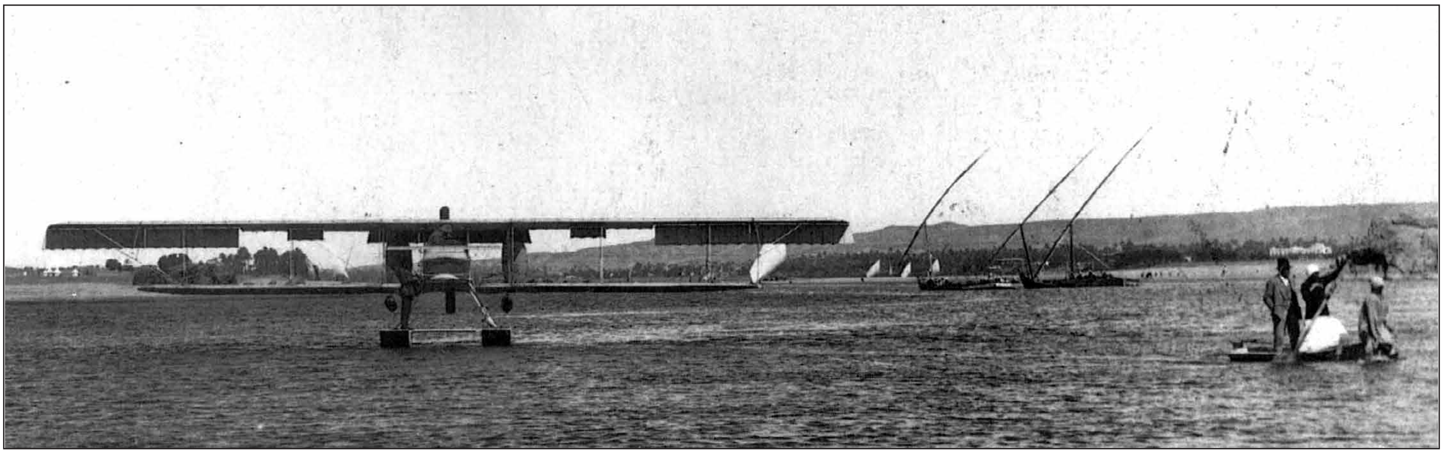
The Heliopolis Air Meeting certainly inspired enthusiasm for manned flight within the educated elite of Egypt; an enthusiasm reflected in the creation of the Royal Egyptian Aero Club that same year with Prince Ahmad Fuad as its founder and first president. A certain Dr Bay – probably a pseudonym – also wrote a "Note sur l'aviation" which was published in the prestigious *Bulletin de l'Institut Egyptien* in 1910. In it he discussed, in a philosophical rather than technological manner, the possible influence that differing electrical fields between the ground and storm clouds may have upon birds in flight. While initially focusing on the influence of such forces upon a bird's ability to navigate and "retain its balance" during flight, Dr Bay also wondered what impact such electrical fields might one day have upon the safety of this wonderful new method of travel – human aviation.

France was still the world leader in aviation and so it was natural that the French Aviation Club was the one to organise the next great competition, a flight from Paris to Cairo via Constantinople. The first to set off on 20 October 1913 was a French crew consisting of Pierre Daucourt and his mechanic Henri Roux, flying a Morane-Borel Type 1913 monoplane. Reaching Constantinople safely, Pierre Daucourt made some demonstration flights over the Ottoman capital before setting off from the newly formed Ottoman Turkish air unit's main base at San Stefano (now called Yeşilköy) for the trip to Egypt. This was undertaken in several short stages via Adapazarı, Eskişehir, Akşehir, Konya and Ereğli before engine trouble obliged the Morane-Borel to make a forced landing at Pozanti. Here teams of engineers were currently building the first railway line across the formidable Taurus Mountains. Unfortunately the Morane-Borel monoplane was badly damaged and while Pierre Daucourt was on his way to the nearest big city of Adana for assistance, his plane caught fire and was destroyed; reportedly because a local peasant was trying to light a cigarette too close to the machine.

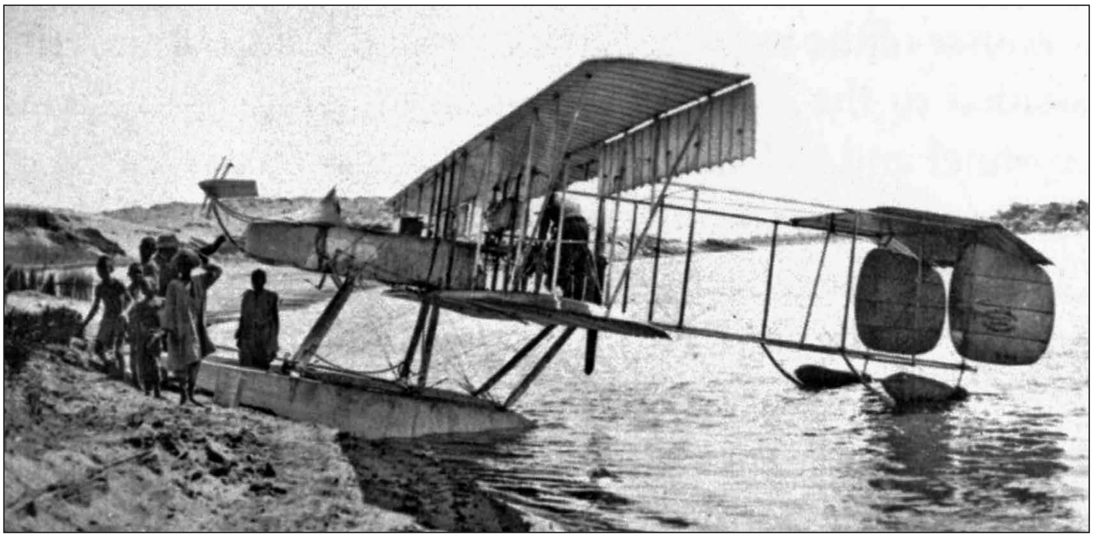
A second French crew consisting of Marc Bonnier and his mechanic Barbier reached Constantinople early in December, flying a Nieuport Type VI-G; again a monoplane. A third French pilot, Jules Védrines, had already set off from Paris is a single-seater Blériot XI monoplane powered by an extra powerful 80 hp Gnôme engine, but after landing outside Nancy, Védrines was prevented from flying further because it was correctly assumed that he intended to fly across the sensitive province of Lorraine which had been annexed by the German Empire in 1871. At the time there was considerable controversy between pilots and governments; the former claiming the air was free – like the high seas – and the therefore had the right to fly wherever they wished. According to this argument, an airman only "entered" a different country when he landed. Most governments, however, wanted control over what they were already beginning to regard as their "air space".

Eventually Jules Védrines took off from Nancy heading west, away from the German imperial frontier, but he then turned around once out of sight of the aerodrome and headed for Prague, the capital of what was then the Austro-Hungarian province of Bohemia, flying over central Germany in the process. In fact Védrines' daring if provocative flight encouraged the holding of an international conference the following year to decide upon such matters. Tried in his absence by a German court, Védrines was sentenced to a year's imprisonment. By then he had already flown via the Bulgarian capital of Sofia to Constantinople where he delighted the Sultan by dropping a Turkish flag onto the Ottoman Imperial Palace before landing at Yeşilköy on 5 December 1913.

Bonnier left Constantinople on 17 December, followed on the 18 by Védrines who then overtook his rival and landed at Beirut on Christmas Day. Two days later he landed at Jaffa in Palestine before



Frank McClean's Short S.80 seaplane moored in the Nile at Aswan on 16 January 1914. (Huston archive via Cross & Cockade International)



During its slow journey up the Nile valley, McClean's Short S.80 naturally caused great interest amongst the local people, particularly the children. This photograph is believed to show a mechanic attending to the engine in Nubia, in northern Sudan.

reaching Heliopolis outside Cairo on the 29 where he was welcomed by the Egyptian Khedive's representative and the French Ambassador who placed a victory wreath around his neck. Unfortunately Védrines soon got into a bitter quarrel with Henri Roux who had flown with Pierre Daucourt in the ill-fated Morane-Borel monoplane; Védrines reportedly accusing the mechanic of unpatriotic behaviour whereupon Roux challenged Védrines to a duel. The latter declined but Monsieur Quinton, the president of the French Aviation League, now suggested that Védrines either fight or leave Cairo. Having returned to Paris, Védrines promptly challenged Quinton, suggesting that they fight with army revolvers at ten paces. This extraordinary affair provided newspaper headlined for weeks before experts in the protocols of duelling pronounced that the matter did not warrant bloodshed.

British involvement in the earliest days of flight in the Arab World seemed almost prosaic in comparison with French activities, and perhaps also more practical. Francis McClean, known to aviation colleagues as Frank, was one of Britain and Ireland's lesser known aviation pioneers. Rich, enthusiastic and something of a daredevil, Frank McClean first flew in 1908 with one of the Wright brothers in France. His personal wealth also enabled McClean to support the three Short brothers establish their famous aircraft manufacturing company in London (later moving to some of the McClean family's land in Kent and finally settling in Belfast in Northern Ireland). Frank himself not only purchased some of the first Short aircraft but tested them personally. On one occasion he earned notoriety by flying a Short seaplane through London's Tower Bridge, followed by flying beneath the London, Blackfriars and Waterloo bridges before landing at Westminster Pier next to the Houses of Parliament.

Having demonstrated that seaplanes could land on a relatively narrow river like the Thames, Frank McClean decided to prove that comparable aircraft could help open up Britain's vast imperial possessions in the heart of Africa. His first objective would be the Nile, so the Short brothers built McClean a special aircraft with a low wing loading, designed to cope with the heat expected in Egypt and the Sudan, even in winter. This was the Short S.80, sometimes also called the Nile Pusher Floatplane, which was a modification of the earlier S.27, powered by a French two-row 120 hp Gnôme engine. A test flight by Gordon Bell on 2 October 1913 was followed by a weight carrying trial with no fewer than five passengers on 19 November. McClean's aeroplane was then dismantled, crated and put aboard the steamship SS *Corsican Prince*. During the first week of December 1913 Frank McClean, his sister Anna, co-pilot Alec Ogilvie, four technicians including flight mechanic Gus Smith, set sail for Alexandria with the crated seaplane.

In Egypt the Short S.80 was reassembled in Alexandria and tested before McClean took off on 3 January 1914 and headed towards the western branch of the Nile. Because the Short's range was very limited, fuel dumps had already been set up along the great river. On reaching the Nile, McClean turned south, then followed the river through the delta before landing in Cairo. This would be the first stage of the British pilot's highly ambitious plan to reach Khartoum, far to the south in the Anglo-Egyptian Sudan. Four people would be aboard the Short S.80 on every leg of its journey, with different people each time, flying at an average altitude of sixty metres above the water. The rest of McClean's team proceeded by land or river with a limited quantity of spares and support equipment. Amongst those who flew part of the way was one of the Short brothers themselves, Horace.

It was a gruelling journey for all concerned though everything went according to plan until they reached Aswan in southern Egypt. There, as Horace Short later said; "he made some flights to the delight of the great crowd which had gathered to see the machine". Two hundred and ten kilometres further south, the Short suffered serious engine trouble, which meant that McClean and his team had to wait a month before new engine cylinders arrived. In fact the Gnôme engine would break down thirteen times before Frank McClean and his Short seaplane eventually reached Khartoum. This was an extraordinary achievement for the period and it proved that aircraft which took off from and landed upon water – be they seaplanes or flying boats – could play a major role in opening up some of the most inaccessible parts of the world without the need for costly aerodromes. This, of course, is precisely what would happen during the 1920s, 1930s and well into the 1940s.

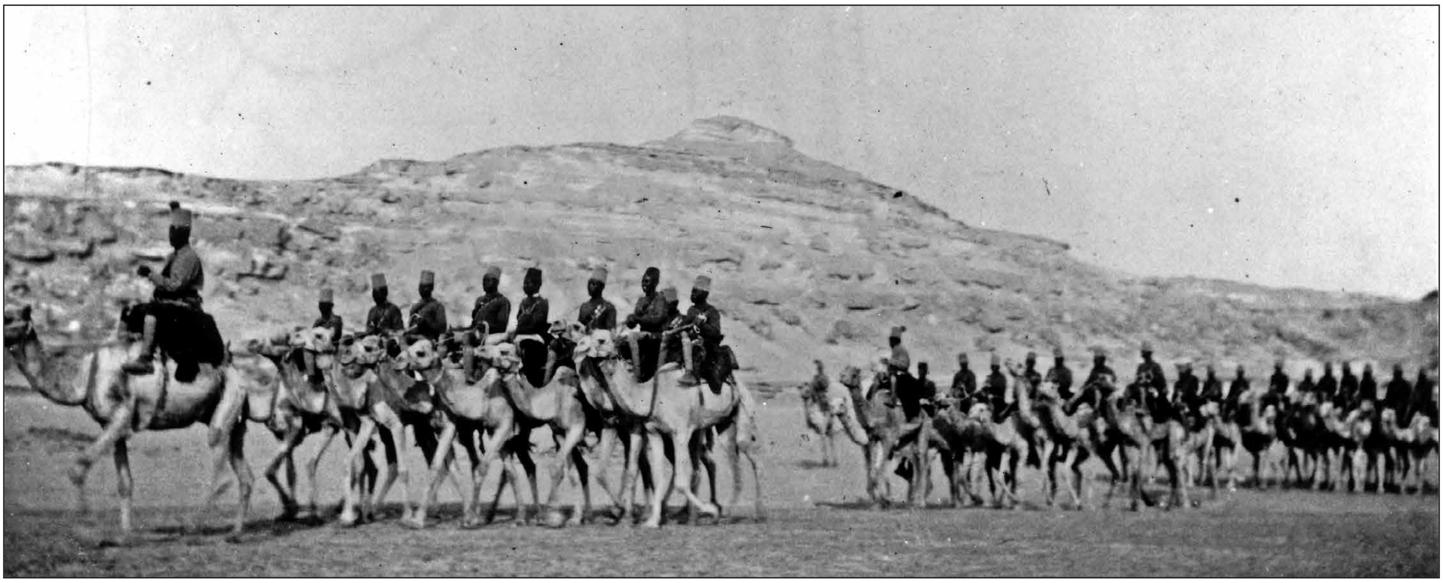
Meanwhile Horace Short had returned to the United Kingdom full of stories to amaze and amuse his listeners. He described how local inhabitants along the Nile were terrified by the sight of the flying machine, yet were still curious enough to wade into the river to get a closer look. Then there was the case of two Egyptian carpenters hired to do minor repairs but who refused to get into the aeroplane, even though its engine was turned off, "lest it should fly away with them".

During this epic journey the question of national prestige again raised its head, with McClean and his team finding themselves overtaken by a French airman Marc Pourpe and his mechanic, the future French-American fighter ace Raoul Lufbery. Pourpe and Lufbery had been taking part in another Egyptian Aviation Week at Heliopolis from 2-12 January 1914. Despite a crash which damaged his 60 hp Gnôme Sigma powered Morane-Saulnier Type H and delayed him at Heliopolis, Pourpe flew by stages from Cairo to Khartoum. Being a land plane, his Morane-Saulnier did not have to follow the river's meandering course, especially the great bend of the Nile in northern Sudan. Thus Pourpe reached Khartoum in around ten days, carrying the first airmail in Egyptian history. Frank McClean and his Short S.80 did not reach the Sudanese capital until 22 March 1914 and rather than face another three month journey back to Cairo, McClean had his aeroplane crated and shipped back to England.

National prestige was quite clearly the primary motivation for the next attempted international flight to Egypt; this time by a state which was looking to enhance its standing amongst the peoples of the Middle East and most especially amongst the Arabs. This was the Ottoman Empire itself, the so-called Sick Man of Europe which had been losing territory and influence for decades. Now, however, the Ottoman Turkish state was undergoing urgent modernisation; a process which would, to the surprise of most observers, enable its ruling dynasty to briefly outlast its enemies, rivals and allies in Russia, Austria-Hungary and Germany.

During the summer of 1912, while the Turks were still at war with the Italians who had invaded both Libya in North Africa and the Dodecanese Islands in the Aegean, the Ottoman Army sent several officers to learn to fly in France. Within days of the formal end of the war with Italy, the Ottoman Empire faced another and more serious assault – a joint invasion by Bulgaria, Serbia, Montenegro and Greece in the First Balkan War. This resulted in the loss of almost all the Empire's remaining European territory. It was in these desperate circumstances that the Ottoman Turks established their first tiny air units. The Ottoman pilots rushed home from France, bringing with them a handful of new machines, several additional French, German and British aeroplanes later being purchased. They were unable to do much during the disastrous First Balkan War from October 1912 to May 1913, but the brief Second Balkan War from June to November 1913 was more satisfactory. This time Ottoman airmen carried out useful reconnaissance missions over eastern Thrace, the city of Adrianople (Edirne) and the northern Aegean Sea.

The Egyptian Red Crescent was also formed during the First Balkan War, collecting money to establish a hospital in Constantinople for the soldiers of Egypt's nominal sovereign, the Ottoman Sultan. Unfortunately, its personnel soon quarrelled with the Turkish authorities and returned to Cairo. Only a few years later the Egyptian Red Crescent would again find itself treating wounded Ottoman troops, casualties of the failed Ottoman assault upon the Suez Canal in 1915. Yet even as the dust settled after the Balkan Wars, Egypt's own nominal ruler the Khedive appeared more concerned about his family's estates in what had suddenly become Bulgarian or Greek territory. These consisted of property in the town of Kavalla where Muhammad Ali, the founder of the Egyptian ruling dynasty, had been brought up, and also on the island of Thasos. Such estates



The Egyptian Coastguard Camel Corps was regarded as the elite of Egypt's armed forces, though the patriotic fervour of its junior officers would turn a few of them against Britain during the First World War. Here one of its patrols was photographed in the Western Desert around 1912. (Egyptian Geographical Society photograph)

Antipathy to the British occupation of Egypt was also found in other Egyptian uniformed services. Lt. Abd al-Hamid Abu Zaid, seen here in his Coastguard uniform in Alexandria around 1910, would raise his sons to struggle against the British manipulation of their country. Two of them would become well-known pilots in the Royal Egyptian Air Force. (Abu Zaid family albums)

had been given to the Egyptian ruler as a personal fiefdom because of Egyptian military help to the Sultan during the Greek War of Independence early in the 19th century, though they were taken back under direct Ottoman rule in 1908. Such concerns even drew in the British Foreign Office and would persist throughout the First World War.

Meanwhile the Egyptian Khedive and his government found themselves caught between a rising nationalist movement amongst their own people, and British authorities which seemed to become increasingly arrogant as the years went by. The death of the nationalist political leader Mustafa Kamil Pasha in 1908 certainly did not quieten Egyptian demands for freedom and the years before the outbreak of the First World War saw passions rising on all sides.

On 8 May 1914, an Ottoman Blériot landed in Cairo, piloted by Captain Salim with Captain Kemal as his observer. They had completed the final leg of an otherwise disastrous flight from Constantinople which had already cost the lives of three of the Ottoman Army's handful of airmen (see Chapter 3). Nevertheless the crew was greeted with huge enthusiasm by the Egyptians. In fact the most renowned Egyptian poet of the day, Ahmad Shawki, wrote a special eulogy which appeared in the newspaper *Al Ahram* three days after the Blériot landed. Ahmad Shawki's enthusiasm for modern technology, and for the modernisation of Egypt, had already prompted him to write verses celebrating the achievements of Bonnier and Védrines. These had been published on 1 February and were followed by a lament for the Ottoman Turkish aviators killed during the first attempted flight from Constantinople to Cairo, published on 1 April 1914. After making several demonstration flights over the Egyptian capital, the Ottoman pilot and observer flew to Alexandria on the 15. They and their Blériot, which carried the name *Edremit* rather than a serial number, were then taken back to Constantinople by sea. It was the end of an era and within a few months the world would descend into the horrific maelstrom of the Great War.

The British and Ottoman Empires were still the dominant powers in the Middle East, while French domination of North Africa and most of the Sahara Desert seemed similarly assured. However, in the Ottomans' last remaining North African provinces of Tripolitania and Cyrenaica (with Fezzan now forming Libya) tension between the Turks and some local groups gave outsiders a chance to interfere. The Sanussi Brotherhood may, for example, already have been receiving Italian money via the Khedive Abbas Hilmy II of Egypt in order to stir up trouble for the Ottoman government. In the 1890s the British government looked upon the Islamic reforming Sanussi movement with some favour, apparently regarding it as a form of "good Mahdism" in contrast with the "bad Mahdism" which had recently caused such problems in the Egyptian Sudan. To some extent this attitude persisted into the early 20th century when the "quiet" Sanussi leadership stood in contrast to the so-called Mad Mullah, Muhammad Abd Allah Hassan of Somalia. Strictly speaking, the Sanussi movement was not Mahdist but was simply reformist and somewhat puritanical. Ignorance of the differences between various Islamic reform movements and an apparent lack of interest in such matters has bedevilled Western intervention in Islamic affairs down to the present day.

For several years, the Sanussi, the Egyptians and the British had a shared interest in controlling the turbulent Bedouin tribes of the Western Desert. Egypt also still claimed, and to a limited degree controlled, the oasis of Jaghbub. This had been the "seat of the congregation" of the Sanussi movement until 1855 and was the site of the revered tomb of Sayyid Muhammad Ibn Ali al-Sanussi, founder of the brotherhood. Meanwhile Egyptian control of the neighbouring Siwa oasis and a chain of other oases which now form Egypt's "New Valley" was more effective. This was also the case in the Fayyum which is an offshoot of the Nile Valley rather than a true oasis. In fact, Fayyum served as the main base for small-scale Egyptian policing or military actions to control the Western Desert tribes.

In Syria it seems likely that the Khedive of Egypt was again financing certain political groups which wanted Arab autonomy within, although not as yet independence from, the Ottoman Empire. In general, minor local problems and the occasional frontier dispute were dealt with in the imperialist manner that had served the dominant powers well for many years. This meant that the feelings of local people were largely ignored while even those of local subordinate rulers were rarely given much consideration. For example, a small scale border confrontation at Dajayah between Ottoman troops from Yemen and British imperial troops from Aden in July 1901 led both sides to "collect" as many of the tribes as possible, adding them to those already committed either to Britain or the Ottomans.

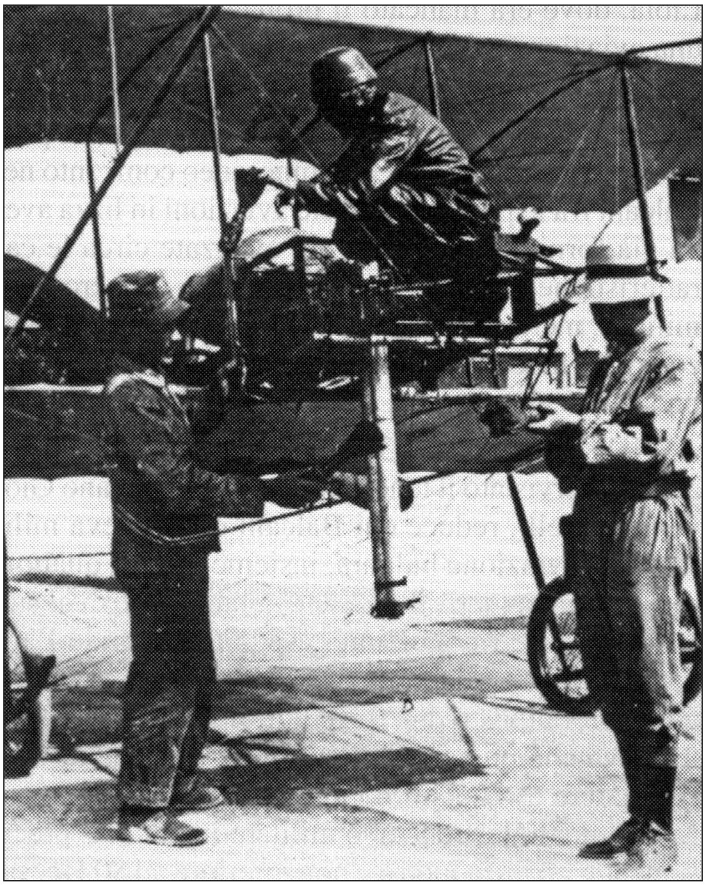
Realizing that this could lead to further difficulty, a Joint Border Commission was set up the following year. Thereafter, quiet reigned for almost a decade. The origins of the modern Yemeni army can, in fact, be traced back to the late 19th Century when the Ottoman authorities began recruiting tribal levies for four battalions of Yemeni gendarmerie and three cavalry regiments. Nevertheless, during the revolt by Imam Yahya against his Ottoman overlords in 1905, the Ottoman governor initially had to rely upon the Syrian reservists who formed most of the Ottoman troops in Yemen. On this occasion the Syrians proved somewhat unreliable, with many deserting to the Imam's side, and so Anatolian Turkish troops had to be brought in. In 1909 and 1911 the Imam's followers again rose in revolt, but in 1911 the Ottomans, facing an Italian invasion of Libya and perhaps fearing an attack upon their tenuous position in

Yemen by forces from the Italian colony of Eritrea on the other side of the Red Sea, patched up their long quarrel with the Zaidi Imam of Sana'a (now the capital of Yemen). Under the resulting Treaty of Da'an, the Shi'a Imam of Sana'a remained religiously supreme in the highlands, though watched by Ottoman military garrisons, while the strategically and economically important coastal lowlands remained under firm Ottoman control. In fact the Treaty of Da'an was so successful that the Imam and his warlike followers would remain loyal to the Ottoman Empire throughout the subsequent First World War. In the meantime the overwhelming majority of Yemeni warriors rallied to the Ottoman Sultan during the Italo-Ottoman War of 1911-12, as did the Imam Yahya himself. Indeed it has been suggested that during the Italo-Ottoman War, Imam Yahya came to see the Ottoman garrisons as "his troops", almost as mercenaries under his direction, especially while Mahmud Nadim Pasha was the Ottoman governor in Yemen. Mahmud Nadim built up a close political alliance with Imam Yahya during his period as governor from 1913 to 1919, with a short break in 1915.

Further stability was brought to the Arabian Peninsula by Britain and the Ottoman government drawing a notional line between the end of a roughly defined frontier between Ottoman Yemen and the British dominated Aden Protectorate to Qatar on the Persian Gulf. Everything to the north and west of this line was considered to be under Ottoman sovereignty while everything to the east and south was henceforth considered to be within a British sphere of influence. During the first half of 1914 the frontier between Ottoman Yemen and British Aden was further refined with a clearer border being agreed between the Bab al-Mandib straits at the southern end of the Red Sea to the Wadi Baba. This only extended for 240 kms but it seemed as if the old imperial methods of maintaining peace and security still worked well.

Meanwhile, the contribution of Italian-ruled Eritrea to Italy's war with the Ottomans in Libya was considerable, providing the Italian Army with some of its most effective colonial troops. The Italian Navy also caused the Ottoman authorities some concern by giving support to yet another troublesome Arabian local ruler in the province of Asir, just north of Yemen.

While the *Entente Cordiale* signed between the United Kingdom and France in April 1904 improved relations and eventually led to military cooperation between these two countries, the legacy of decades of rivalry in Africa did not disappear overnight. In the Sudan, for example, many of the frontiers of this vast, supposedly Egyptian-ruled, but in many respects already British dominated, territory remained undefined. Furthermore, in the years immediately before the First World War, the so-called Scramble for Africa was still incomplete and large territories remained independent. One such area – Darfur – would soon see the Egyptian Army's first direct experience of battlefield cooperation with aircraft. Here Sultan Ali Dinar had ruled since 1898 and would continue to do so as until 1916. In 1913, however, the British and Egyptian authorities were more concerned about increasing French influence in the independent Sultanate of Darfur, stemming from the neighbouring Sultanate of Wadai which had fallen under French domination as recently as 1909. As yet there were neither Egyptian nor British outposts in the area and the matter was still unresolved when war broke out in Europe in 1914, whereupon the British naturally lost interest in this very minor imperial problem – though the Egyptian government did not.



A French built Henri Farman Type 1911 Militaire in Italian service in Libya in 1912. Its bomb-dropping tube was a simple device which could attached to different parts of the aeroplane, according to the observer's preference. Here both a mechanic and an aviator hold what were little more than grenades with fins attached. (Stato Maggiori Aeronautica photograph)

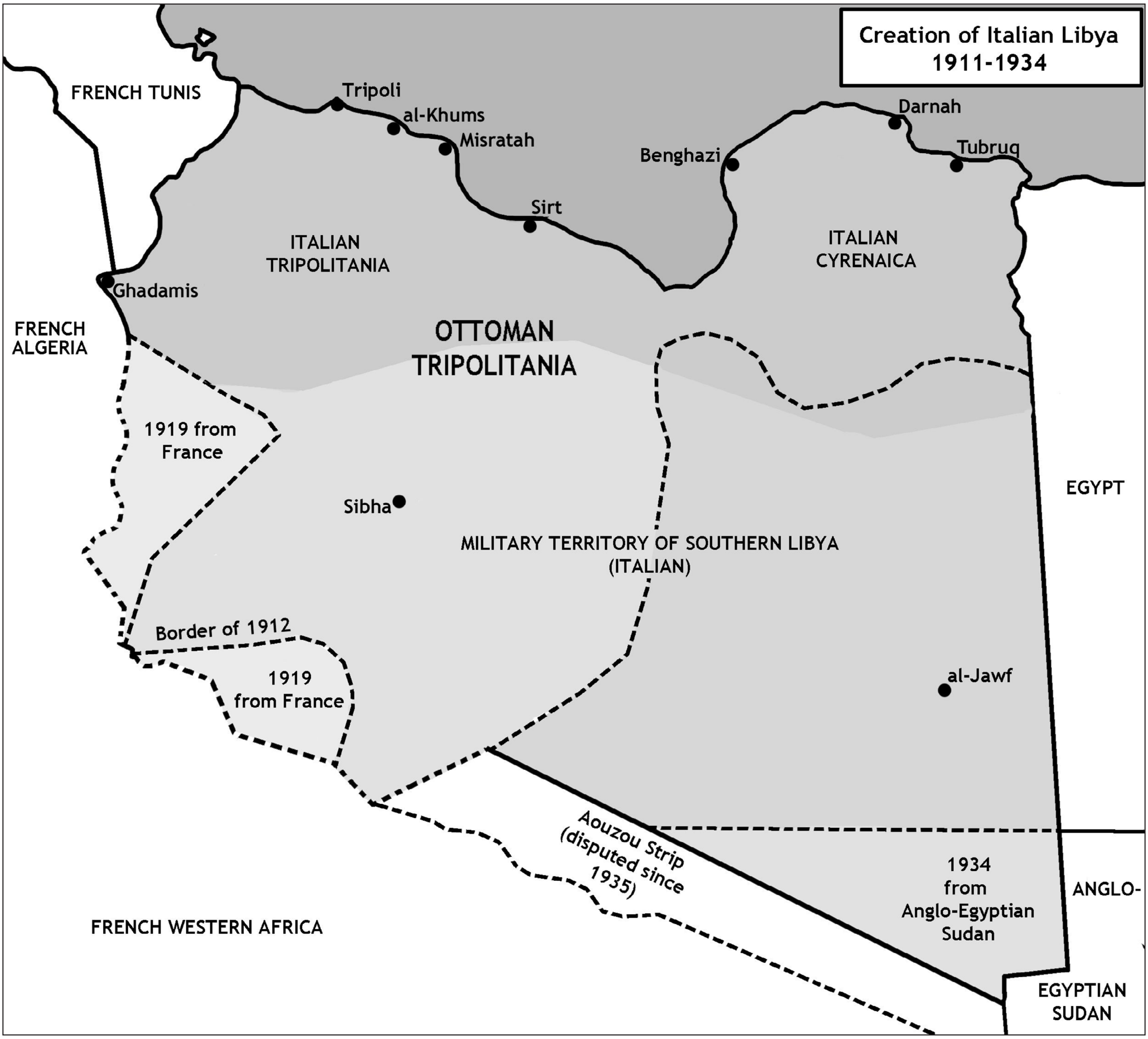
2

THE ITALIAN INVASION OF LIBYA (1911–1914)

The comfortable and relatively stable arrangements which characterised relations between the imperial powers during the first decade of the 20th century were rudely disturbed by Italy's sudden declaration of war against the Ottoman Empire. International rivalry may have played a significant role in the earliest years of aviation in Egypt and Sudan, Syria and Palestine but in these Arab territories the inhabitants were little more than enthusiastic onlookers. The earliest years of aviation in North Africa were more serious and more blood-stained with the Arab and Berber inhabitants often finding themselves targets rather than mere observers of a new form of warfare.

While pretexts were found for the Italian invasion of Libya, the real motive was Italy's desire to strengthen its position as a member of the club of major European colonial powers. As a latecomer to the Game of Empire, Italy suffered a humiliating defeat at the hands of Abyssinia (Ethiopia) in 1896. Nevertheless Italy had established a successful imperial outpost in neighbouring Eritrea and had also won control of many coastal regions of Somalia. In 1906, the Italians also recruited thousands of Yemenis and gave them military training in Somalia. These troops would soon prove useful in Libya.

Now, with a powerful navy and a modern army, the Italian government believed it could take control of Ottoman Libya with relative ease. In fact the reality would prove very different; the


Creation of Italian Libya
1911-1934
FRENCH TUNIS
Tripoli
al-Khums
Misratah
Sirt
Benghazi
Darnah
Tubruq
ITALIAN TRIPOLITANIA
ITALIAN CYRENAICA
Ghadamis
FRENCH ALGERIA
OTTOMAN TRIPOLITANIA
1919 from France
Sibha
MILITARY TERRITORY OF SOUTHERN LIBYA (ITALIAN)
EGYPT
Border of 1912
1919 from France
al-Jawf
Aouzou Strip (disputed since 1935)
1934 from Anglo-Egyptian Sudan
ANGLO-
EGYPTIAN SUDAN
FRENCH WESTERN AFRICA

A map depicting how what is known as the modern-day Libya came into being. Originally, roughly half of this area was a part of the Ottoman Tripolitania. In 1911, this was invaded and conquered by Italy. A year later, the government of British-controlled Egypt accepted Italian sovereignty over a large area in the south east, while France ceded two parts of Algeria and its western African possessions in 1919. Finally, in 1934, Anglo-Egyptian Sudan ceded a part of its territory to complete the creation of Libya. (Map by Tom Cooper)

struggle proving long, hard fought and obliged the Italians to use all their technological advantages – not least aeroplanes. During preparations for their invasion, the Italian General Staff tried to integrate air operations into their overall strategy. They were not the first to make such plans, but they would be the first to put them into practise. Experiments dropping small bombs from a Henri Farman biplane were carried out and rival proponents of lighter-than-air airships and heavier-than-air aeroplanes expected that the forthcoming conflict would finally settle their dispute.

Military manoeuvres around Monferrato in northern Italy in late August 1911 served as a final practice ground. Here a pilot who would soon earn himself a place in aviation history, reserve *Sottotenente* (Sub-Lieutenant) Guilio Gavotti, flew his Etrich Taube in support of the "Red" Army from its airbase at Salussola. However, a forced landing on 24 August broke the Taube's wing. August 1911 also saw an air race between Italian and French civilian pilots while fifty-one Italian officers took part as non-competitors despite having just been involved in the intensive Italian military manoeuvres. Severe storms nearly prevented the first stage of this race taking place but the Italian participants insisted on setting off, including Gavotti in his now repaired Taube. Because of the weather, only three pilots completed this first stage. Piazza, Gavotti and Moizo were all Italian and were all due to be sent to North Africa.

Italy declared war upon the Ottoman Empire on 29 September 1911 and within a few days Italian naval ships were shelling the city of Tripoli. This was followed by a successful naval landing on 10 October. In addition to seizing Tripoli and Khoms in western Libya (Tripolitania), the Italians also took control of Tubruq and Derna in the east (Cyrenaica, or Barqa as it was called in Arabic). Here, however, Benghazi, put up stiffer resistance. The 1st [Tripoli] Aeroplane Squadron had left Naples in three small ships, the *Plata, Enrichette* and *Sannio*, at the very start of the conflict and would be

The Italian invasion of Ottoman Libya saw aeroplanes used for offensive rather than merely reconnaissance purposes for the first time. Some of the Italian military pilots who would achieve these warlike "firsts" had been flying in peaceful air rallies only weeks earlier. Here Ten. Giulio Gavotti is kitted out for the Primo Circuito Aereo from Bologna to Venice to Rimini and back between 17 and 20 September 1911. (Stato Maggiori Aeronautica photograph)

followed about a month later by the 2nd [Benghazi] Aeroplane Squadron. Their aircraft were mostly monoplanes: two (later three) Etrich Taubes, two Blériot XIs, and three relatively high speed Nieuport IVMs. The only biplanes were two Henri Farmans with reduced span lower wings.

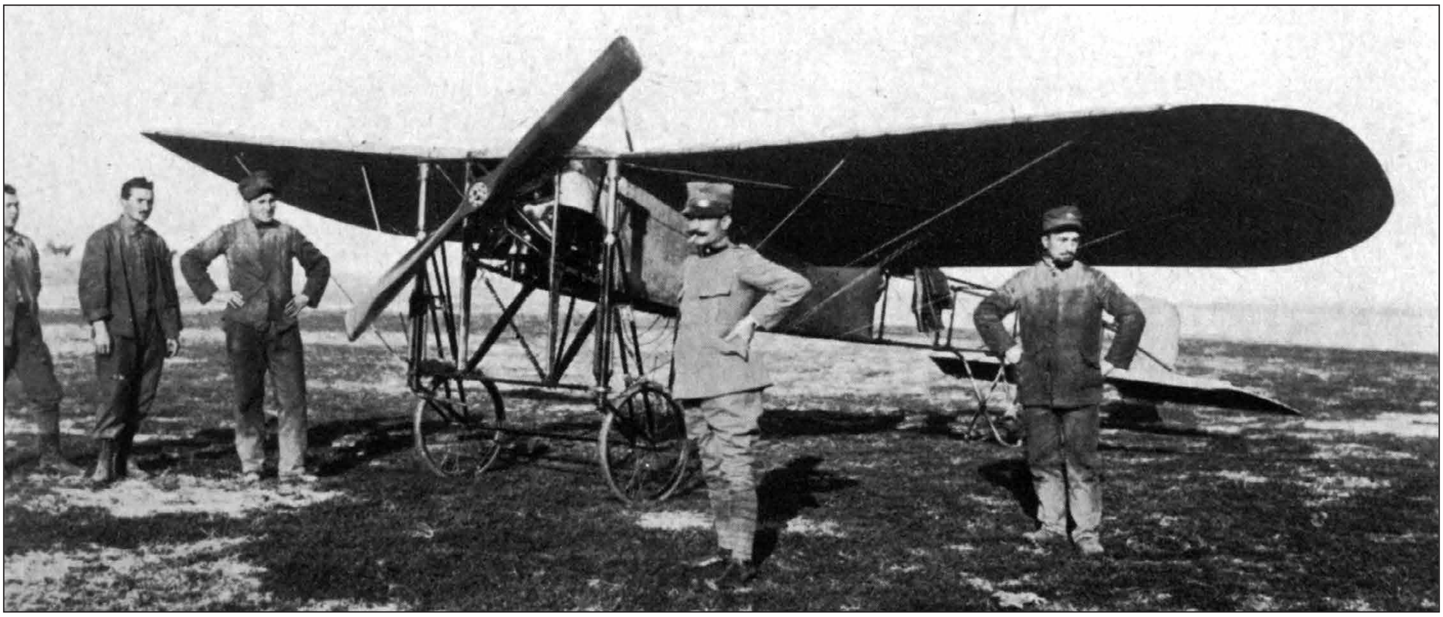
The pilots consisted of Capt. Piazza, Capt. Moizo, Major Falchi, Lt. Rossi, and Lt. Gavotti. Eventually there would be eleven pilots, plus twenty-nine other men. In the meantime the Italians gave military priority to landing all other military equipment rather than the flying machines, and it was only after the intervention of Capt. Pietro Badoglio that the aeroplanes were brought ashore. This had to be done aboard lighters from ships moored out at sea, almost a kilometre and a half from Tripoli port. Nevertheless, by the end of 20 October the men and machines were established in an area known as the Jewish Cemetery, otherwise identified by a few palm trees and a flock of curious vultures. The pilots soon nicknamed their new flying field the Constitutional Hotel and two days later the 1st [Tripoli] Squadron was ready to fly.

Italy was still a member of the Triple Alliance with Germany and Austria-Hungary; an association which stood as an undoubted rival to the Triple Entente of France, Britain and Russia. Nevertheless, at this stage Britain took a positive view of the Italian invasion though France was far more dubious, correctly interpreting it as the arrival of a future rival in North Africa and the Sahara.

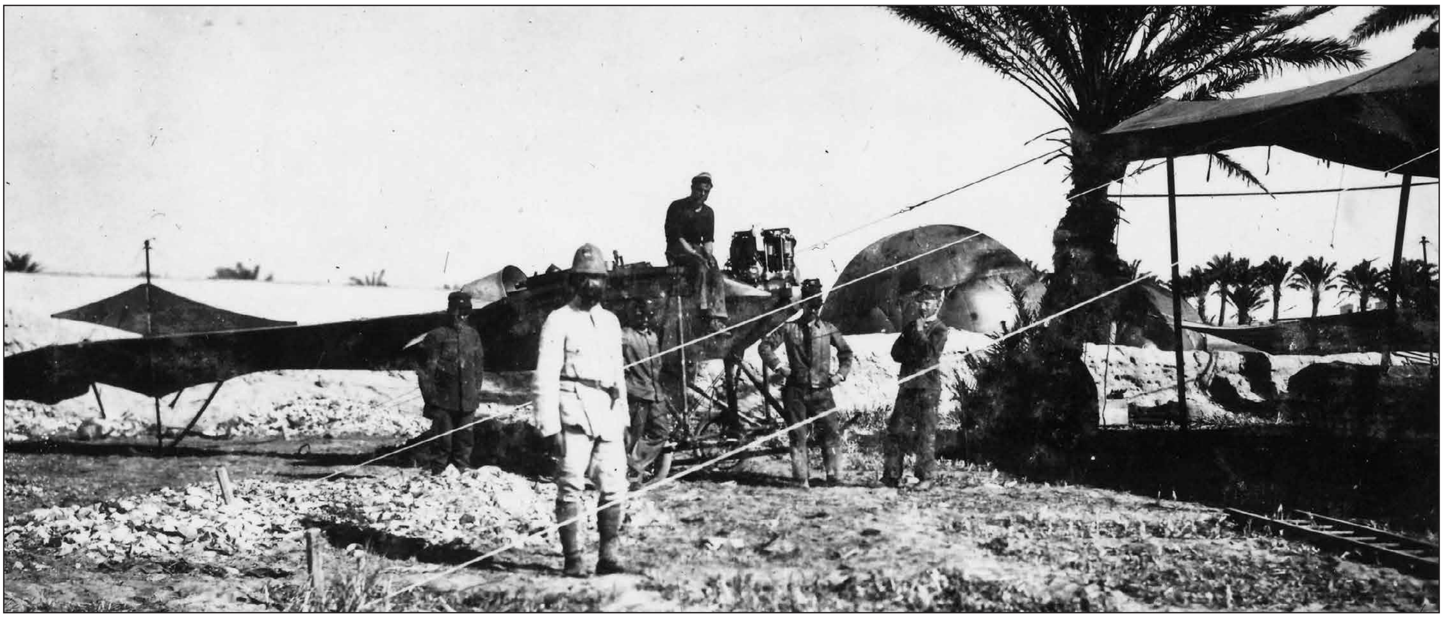
The Ottoman Empire was in a much weaker position, with only a handful of small garrisons dotted around Libya, almost all in the coastal towns. Similarly, the Ottoman Navy was in no position to challenge the Italians or even to send troops to Libya by sea. Consequently, most resistance to the invaders came from local Arab and Berber tribesmen who proved to be remarkably effective. In fact, they became increasingly so after small number of Ottoman officers and NCOs made their way to Libya by whatever means they could, mostly through British dominated Egypt but also via French-ruled Tunisia. These men then organised the Libyan fighters into guerrilla bands called *adwar*, each of between 100 to 300 men (for Ottoman efforts to establish their own "air presence" in Libya, see Chapter 3).

During the course of the Italo-Ottoman War, which went on much longer than any European observers had expected, other Arab and Muslim volunteers also headed for Libya. Although Britain refused to allow the transit of recognisable Ottoman military units through Egypt, Egyptian officials usually turned a blind eye or even actively assisted the passage of substantial numbers of individuals. Egypt was officially neutral but the Egyptian people were overwhelming hostile to the Italian invasion. This was especially true of those Egyptian nationalists who, despite having differences with the current "Young Turk" Ottoman government, were far more opposed to European domination, be it British in Egypt, French in Tunis and Algeria, or now Italian in Libya.

Another Italian junior officer who would find himself sent to Libya was Capt. Riccardo Moizo, seen here in Italy in the 50 hp Gnome-powered Nieuport IV.G in which he would later be shot down near Tripoli. (Stato Maggiori Aeronautica photograph)



The Blériot of Capt. Carlo Piazza at the newly established Italian aerodrome outside Tripoli. Another photograph which was taken in Libya shows still having a number 1 on its rudder, having not yet been removed following the Primo Circuito Aereo in Italy. (Stato Maggiori Aeronautica photograph)

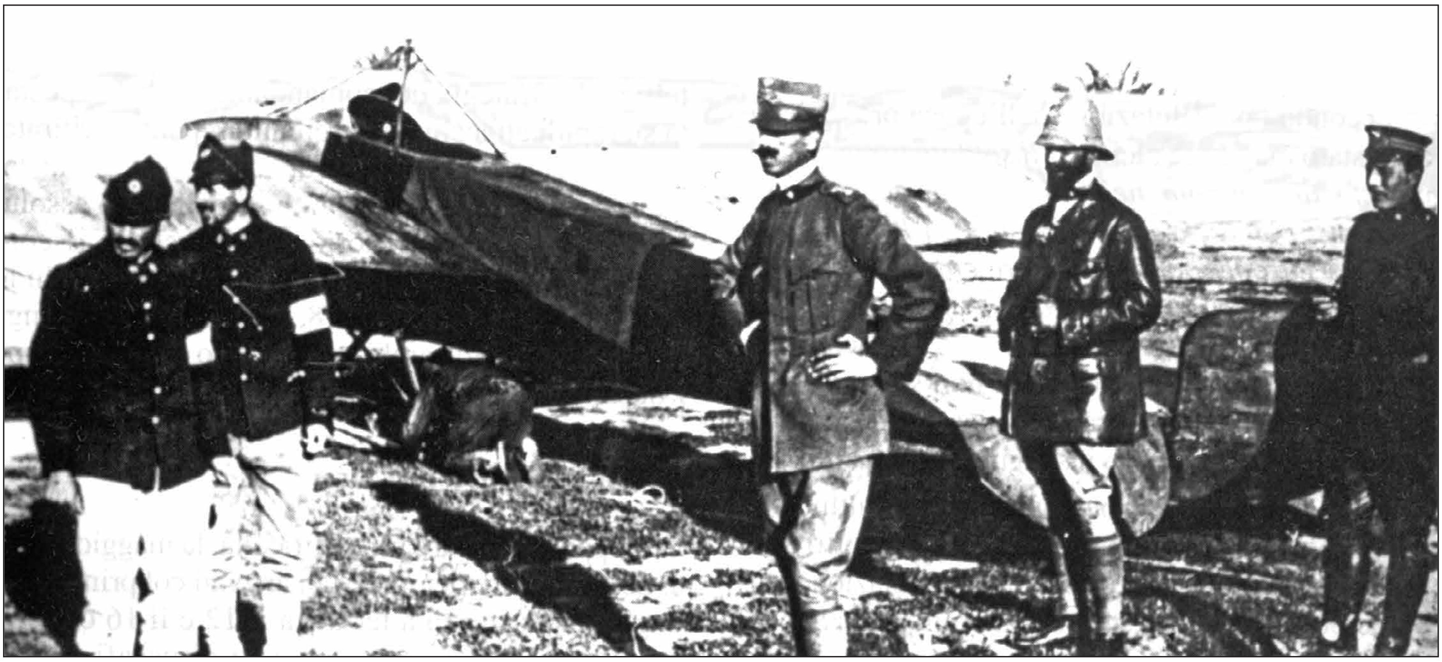


Another type of aeroplane which the Italian Army used in Libya was an Etrich Taube, a monoplane whose distinctive wings were shaped like those of a dove. Its best known pilot was the bearded reserve Sottotenente (Sub-Lieutenant) Guilio Gavotti who is seen here in front of the aeroplane from which he dropped the first four small bombs to fall from a heavier than air machine. (Maggiori Aeronautica photograph)

Large sums of money as well as of supplies including weapons, were consequently raised for Muslims who were fighting in Libya. These funds were then taken by smugglers across the border where Egyptian Frontier Forces managed to "miss" such smuggling caravans unless they themselves were under direct British command.

Several of the Ottoman Empire's military leaders also reached Libya, including some men who would play an important role in the upcoming First World War and in the subsequent establishment of the Turkish Republic. Amongst them were Ismail Enver Pasha and Mustafa Kemal (Atatürk). Another important commander was Aziz al-Masry, "Aziz the Egyptian", who was for a while Enver Pasha's right-hand man around Tripoli. Born in Cairo into a family of Circassian, Turkish and Egyptian origins (his original family name being Chahipe), Aziz had entered the Ottoman Military Academy. Graduating in 1901 he entered the Staff College in Constantinople, passing out with distinction three years later. During the early part of his career this Egyptian-Ottoman officer served in Yemen and the Balkans. During his first military posting on the Vardar river in Macedonia, Aziz al-Masry joined a secret political organisation which called itself the Committee for Union and Progress (CUP). This eventually emerged from the shadows, coming to be known as the Young Turks and taking control of the Ottoman government in 1908. During this period Aziz strongly supported Ottoman unity but as the years passed by, and as the Young Turk government adopted a harsher line against the Empire's Arab populations, Aziz al-Masry came to favour some degree of Arab autonomy, though still within the Ottoman state.

In modern terms, Aziz al-Masry would be called a political moderate, hoping that the main political trends – Ottomanist, pan-Islamic, Egyptian and Arab nationalist – could cooperate. In fact, Aziz believed that the Ottoman Empire was too vast and too complex to function as an authoritarian centralised state. Unfortunately, most of his colleagues amongst the Young Turks disagreed; this being especially true of Enver Pasha. Furthermore, Aziz's own mixed



Capt. Ricardo Moizo with his Nieuport IV.G which formed part of what became the 1st Squadrigia in Tripoli. Behind him is Gavotti. (Stato Maggiori Aeronautica photograph)

family background made him an easy target for those who wanted the Ottoman Empire to became more emphatically Turkish. In contrast, Aziz's origins made him popular amongst certain Arab and Egyptian political groups, often to his own embarrassment and annoyance. Aziz al-Masry was never a fully-fledged Arab nationalist, though he would evolve from being a "moderate Ottomanist" into something closer to an Egyptian nationalist.

Whether the quarrel which developed between Aziz al-Masry and Enver Pasha was also a clash of personalities, or was simply political or was rooted in rivalry during the struggle against the Italians in Libya, remains unclear. Both men were initially in charge of operations around Tripoli, and only later did Aziz al-Masry take command of the much more prolonged Libyan resistance around Benghazi and in Cyrenaica. Nevertheless, none of these Ottoman volunteer officers would have reached Libya when Italy suffered its first military setback. This happened just east of Tripoli at Shar al-Shatt (Sciara Sciat). On the first day of heavy fighting on 22 October 1911 Capt. Carlo Piazza made the Italians' first flight in Libya in his Blériot XI. This was followed next day by the first proper aerial reconnaissance of the war, focusing on the area between Tripoli and Azizia, but even an aerial reconnaissance did not prevent the Italian Army suffering heavy losses as a result of a Libyan counter-attack. At the same time, another reconnaissance by Capt. Riccardo Moizo almost came to grief when he was forced to land due to engine trouble.

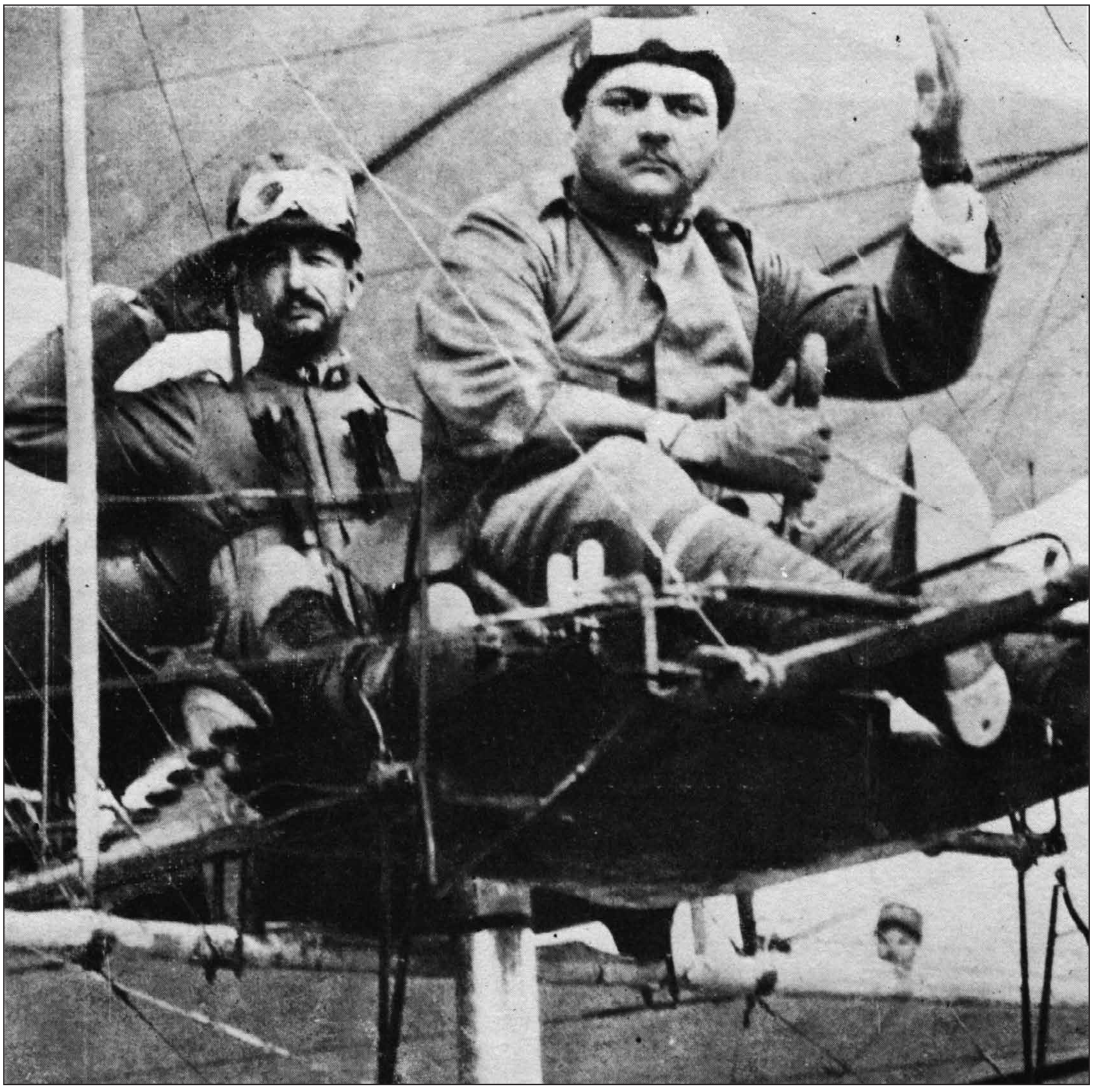
After this reverse at Shar al-Shatt, the Italian military command realised that they needed better detail, more prompt and accurate information about the enemy. It was particularly important to locate units of highly mobile Arab tribal cavalry. The Blériot's range was short so most of these missions fell to the Nieuports, which were themselves soon supported by the Taubes which had taken longer to get ready for action. The only real tactical advantage which the Italians enjoyed was their warships which supplied naval gunfire in support of Italian troops on land. Between 26 and 28 October, Piazza in a Blériot and Gavotti in a Taube directed such gunfire from the battleship *Carla Alberto* during the ongoing struggle for Shar al-Shatt. During this work, both aeroplanes found themselves in danger not only from enemy rifle fire but also from the shock waves caused by passing Italian naval shells.

Only a few days later the Italians achieved another first in aviation history when, on 1 November, *Sottotenente* Giulio Gavotti dropped four small spherical bombs. These missiles were 2kg Cipelli bombs, which the pilot kept in a leather bag while their detonators were kept separately in his pocket. Over Ain Dara, Gavotti put one of the little bombs between his knees, screwed in the detonator, then dropped the missile over the side of his cockpit by hand. He then flew to Taguira where he dropped a further three Cipelli bombs. The whole flight was at a speed of around 90 kph and the targets were about ten kilometres from Gavotti's aerodrome. Unfortunately, according to the Ottoman authorities, a hospital was hit though this was not necessarily by Gavotti's bombs as the area was also being shelled by Italian warships.

The Cipelli bombs were not very reliable, so Italian aircraft started dropping modified Swedish-manufactured Haasen grenades which the Italian Navy had seized from a Greek sailing ship, the smuggler *Amphitrite*. Later a much more effective bomb was invented by Bontempelli. It had an aerodynamic casing and contained shrapnel. The largest version of this new weapon was dropped by Italian airships which were eventually fitted with "Campodonino boxes", each containing ten bombs. These were probably the first real bomb racks to be used in action.

On 24 November Capt. Moizo was back in action, carrying out what is thought to be the first aerial direction of an army artillery shoot against an enemy position. Three days later news reached the Italian military command in Libya, warning of the possible appearance of Ottoman aircraft. This was probably prompted by information that some Ottoman officers had been sent to the Blériot flying school in Paris, the first two of these men to obtain their "wings" being Cavalry Captain Fesâ Bey (brevet number 780) and Engineer Mechanic Yusuf Kenan (brevet number 797) in 1911. However, nothing came of this scare although for a while consideration was given to painting Italian aircraft in Italian colours and giving their pilots guns. In fact the first aircraft purchased by the Ottoman Turks were two Deperdussins, a single-seater and a two-seater, which arrived in Constantinople in March 1912. None would reach the Ottoman forces in Libya though the Italian Navy would later intercept a ship carrying a British built Bristol monoplane, purchased by the Ottomans but now seized by the Italians (see Chapter 3).

After Italian troops finally took control of Ain Zara, a message was sent to Rome by General Commander Carlo Caneva, summarizing the problems he had faced and the vital role played by his handful of aeroplanes; "The only reliable information we received was from the pilots on what they had personally observed". Perhaps as a result, on 7 December 1911, the Army Chief of Staff in Rome, Gen. Pollio, sent a special message of congratulations to the Italian flyers in Libya.


A photograph taken in Libya on 31 January 1912 shows Capt. Montu of the Italian Army seated in a Henri Farman Type 1911. Two grenade-bombs with fins are strapped to his chest. The top of a "bomb tube" can be seen below and to the right of his pilot, the civilian volunteer and reservist G. Rossi who is understood to have been given the military rank of Tenente or Lieutenant. (Stato Maggiori Aeronautica photograph)

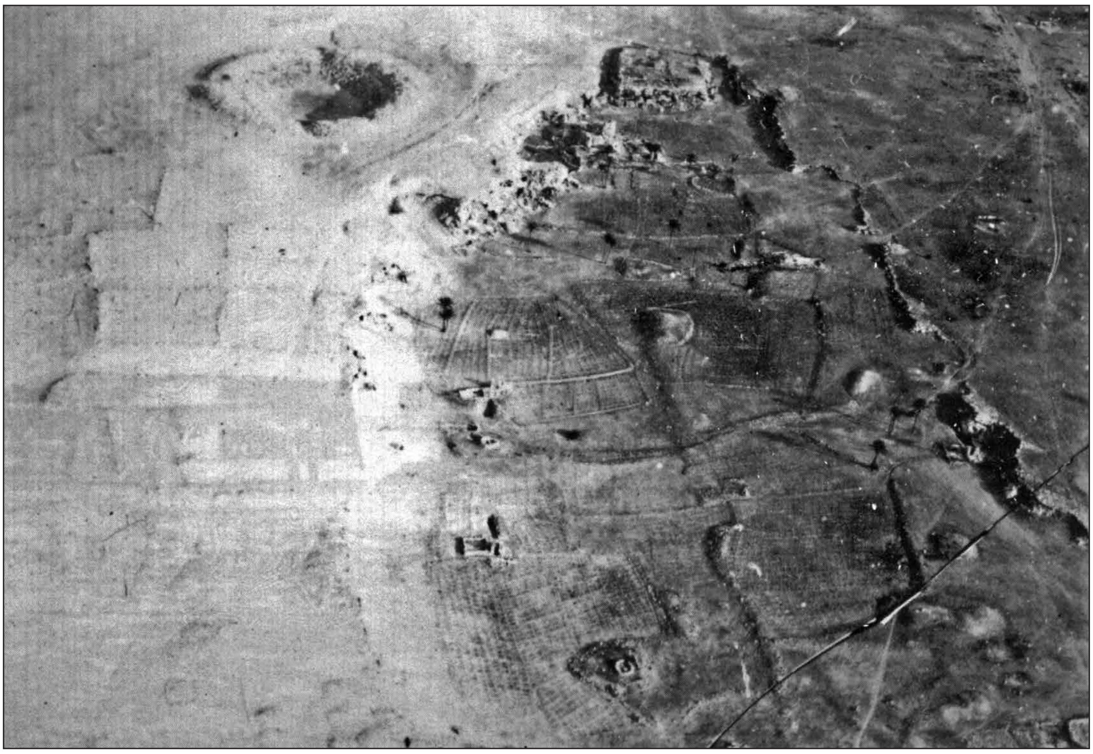
The limited range, endurance and bomb-load of these first aeroplanes had been anticipated and so, as early as 1 October 1911, two Italian naval airships of the semi-rigid Piccolo (Small) type had been selected for service in Libya. These were the P2 and P3 which had already made ninety-seven and thirty-seven ascents respectively. The first of an eventual series of eight P Type airships was built in Rome by the *Battaglione Specialisti del Genio* and in 1911 the airship unit, commanded by Lieutenant Guido Scelsi, was taken aboard the ship *Lombardia*, arriving in Tripoli on 3 December. Unloading was nevertheless a major problem because the port lacked modern harbour facilities.

The rest of the unit and its equipment arrived aboard the *Solferino* on 11 December but now the men faced new problems with winter weather and no hangers for their airships. They shared the "Jewish Cemetary" aerodrome and were still in the process of erecting two airship sheds when the area was hit by a violent storm. A completed hanger collapsed, the partially built one was damaged and, worse still, airship P3 was seriously damaged though the still uninflated P2 suffered less. Next day Sub-Lieutenant Bruno Brivonesi set off back to Italy to purchase a stronger hanger, big enough to house both airships. These would themselves be sent back for repair early in January 1912. As a result the first flight by an Italian airship over Libya was delayed for over a month.

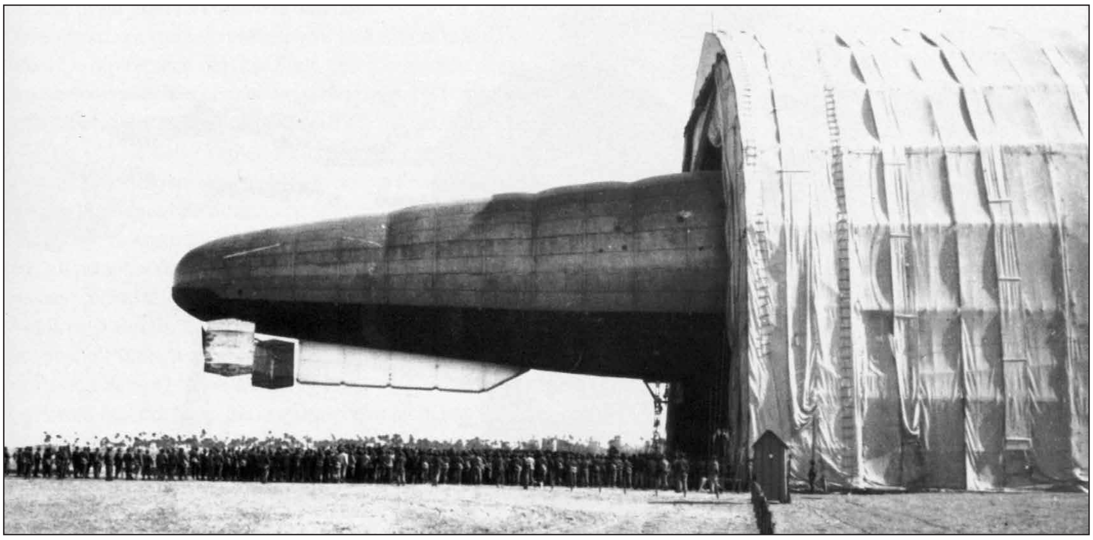
Meanwhile, the Italian Army still only controlled a small area around Tripoli. By the end of November 1911 this consisted of an entrenched triangle stretching about 8 kms along the coast and approximately 4 kms inland. Beyond this, however, Italian patrols dominated other territory beyond their own fortifications. The conflict already seemed to have reached stalemate in a war of positions comparable to what would soon be seen on a much larger scale during the First World War. By December the Italians also held other smaller coastal enclaves but the early hope of a speedy colonial conquest was dashed by unexpectedly prompt and effective counter-attacks launched by Arab forces who had far better knowledge of the terrain and were led by skilled Ottoman officers.

To further complicate matters Italian commanders had claimed the entire region of what they maintained was "historical" Cyrenaica as far as longitude 27 degrees east. This would have included more territory than the existing Ottoman province or *Pashalik* of Trablus al-Gharb ("western" Tripoli in Libya as distinct from "eastern" Tripoli in Lebanon). This claim included the little port of Sollum which Egypt and Britain insisted had historically been within Egyptian territory, and would remain so. British officials in Cairo therefore persuaded the Egyptian Frontier Forces to send men to Sollum where the little Ottoman garrison happily handed over to those they regarded as representative of their Sultan's nominal vassal, the Khedive of Egypt. The British and Egyptians also pointed out that the oases of al-Jaghbub and Siwa were similarly within the traditional Egyptian frontier, though they both lay west of longitude 27 east.

The year 1912 saw Italian fortunes improve as the territory they controlled was expanded from April to early August. Eventually the Italian Army controlled almost all the Libyan coast, but this territory



The Roman amphitheatre at Sabratha, almost buried in sand but photographed from the Italian dirigible airship P2 in December 1912. It did not take archaeologists long to realise that aerial photography could be a very useful new tool. (Stato Maggiori Aeronautica photograph)



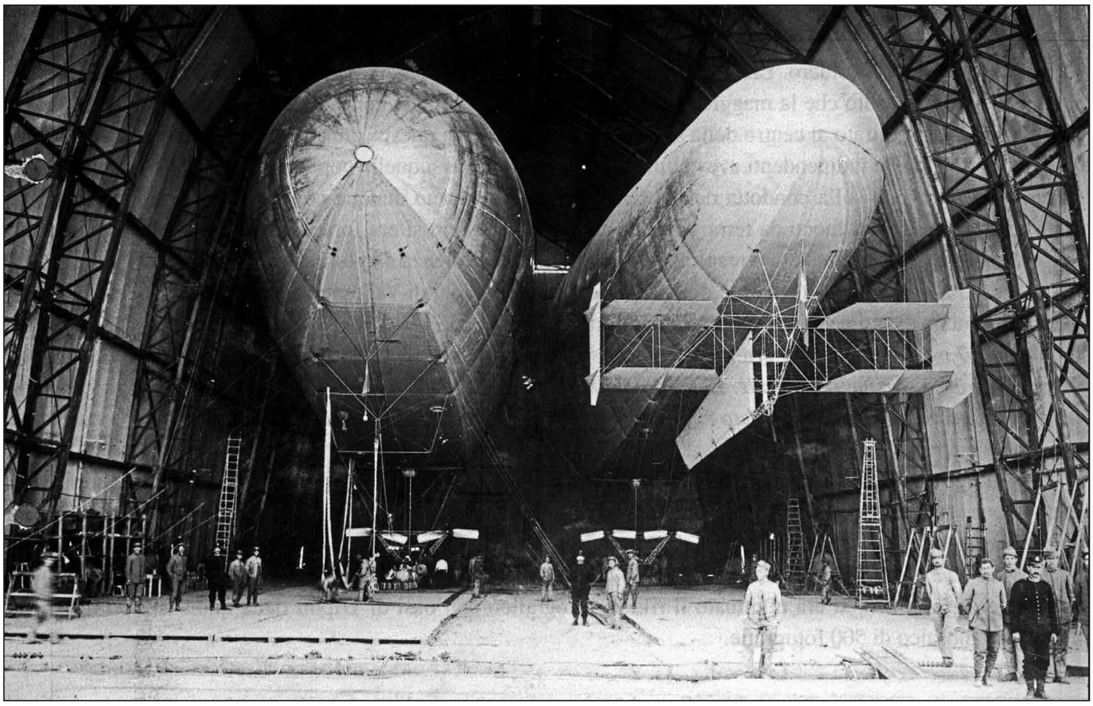
One of the Italian dirigibles which carried out long distance reconnaissance and bombing missions during the Italo-Ottoman War in Libya is seen here, reversing out of a hanger in Libya in 1912. (Stato Maggiori Aeronautica photograph, via R. Catellani)

consisted of little more than a slender strip within the range of Italian naval guns. Meanwhile the Italians put greater reliance upon modern technology than was seen in either the British or French dominated regions of North Africa. Aerial operations increased with the use of aeroplanes, airships and static observation balloons. The Italian people clearly also recognised the importance of this new form of warfare, raising what was then the huge sum of three and a quarter million lire in a National Subscription Fund. Organised from April to October 1912, it was used to purchase new aircraft and resulted in more aeroplanes being sent to both Tripolitania and Cyrenaica. In the former area, for example, the Italians had seventeen aeroplanes in operation by late January 1912, providing the Italian Army with almost constantly updated reconnaissance of the entire cultivated area around Tripoli city. Newly qualified pilots were similarly sent to Libya to gain operational experience. It soon became clear that this was not without risk when, on 31 January 1912, Captain Carlo Montu was the first airman to be injured on active operations.

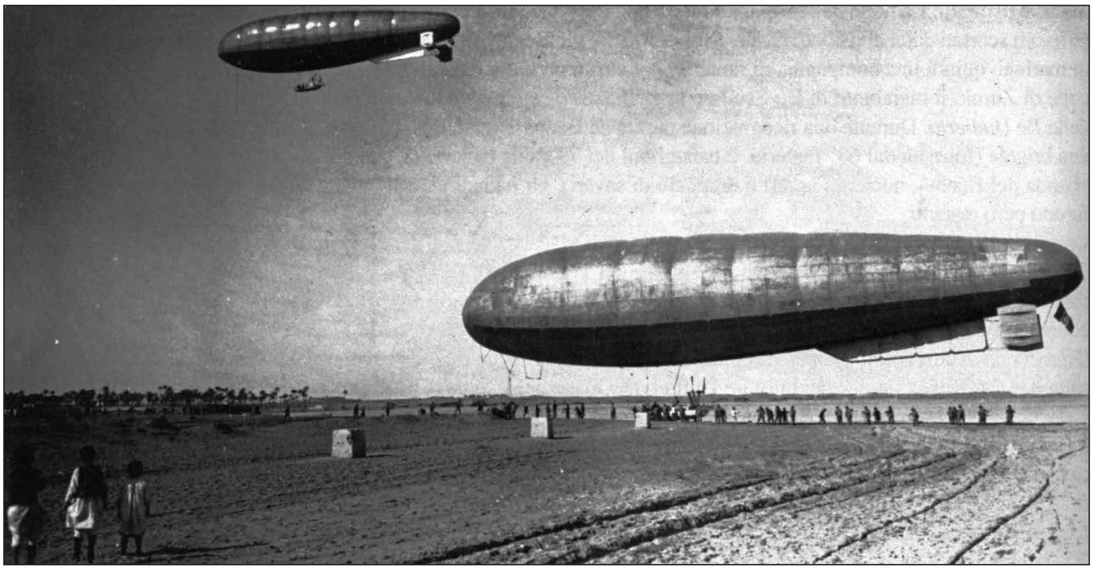
During the winter of 1911-12 the Italians also tried to use fixed balloons to support artillery fire but adverse weather conditions meant that these could not operate. Meanwhile the old hands continued to play their part, Gavotti's reconnaissance missions proving vital for an Italian break-out from the Tripoli enclave. Accurate maps of Libya barely existed and so the aeroplanes were called upon to assist Italian Army mapmakers. As a result Capt. Piazza and his Blériot XI achieving another first with a photo-reconnaissance mission on 23 February 1912. His camera was borrowed from the Italian Army's Engineering Corps and was attached to a fixed mounting but only one photograph could be taken each flight. 4 March saw a further first when Piazza and Gavotti carried out the first nigh time aerial reconnaissance under war conditions. Nine days later Lieutenant Piazza was wounded by ground-fire.

Earlier on the same day, 4 March, the two Italian airships made their first test flight in Africa, followed next day by their first operational mission over Zanzur. As would become standard practice in Libya, each airship had a crew of three officers and a flight engineer. This arrangement that meant that while one officer flew the machine, two were available for observation, mapmaking, photography or bomb dropping. The crew of P2 consisted of Lieutenants Salvatore Denti di Pirajno and Castruccio Castracane, Sub-Lieutenant Brivonesi, with Engineer Sergeant Mantovani. The P3's crew were Lieutenants Scelsi and Giulio Valli, Artillery Lieutenant Luigi Scelzo, and Warrent Officer Natale Cecioni. Sometimes flying in less than favourable weather conditions, the two airships initially flew as a pair in case one got into difficulties, but as confidence and experience grew they began flying solo missions which saved on fuel and hydrogen. Meanwhile, on 18 April, command of their air base passed to Lieutenant Commander di Pirajno and on 22 August to Lieutenant Valli.

Starting in May 1912, Italian troops, supported by the Italian Navy, advanced west from Tripoli and cut the enemy's main supply route from the French-Tunisian frontier. This victory was achieved despite determined resistance by the Libyans and their Ottoman advisors. It was also to a large extent due to the work of aircraft. The Italians then advanced south and east, driving the Libyans and Ottomans away from the coast. However, Italian aircraft operating from Tripoli had now reached the limit of their reconnaissance range.



The Italian airships P2 and P3 in their hanger in Tripoli in 1912.



Another view of the dirigible airships P2 and P3 during their operations against Ottoman Turkish, Arab and Berber resistance forces in Libya around 1912. (Stato Maggiori Aeronautica photograph via R. Catellani)

Airships, with their greater range, had already supported a naval landing by the Italian 5th Special Division under Lieutenant General Vincenzo Garioni on 12 April 1912. This targeted a strategic peninsula between Ras al-Makhbaz and Sidi Sa'id. To enable the airships to sustain their participation in the operation, P2 and P3 were refuelled and their hydrogen topped up at sea, from the vessel *Ercole*. P2 had then headed south to investigate activity at Regdalin where several caravan routes met, spotting a small enemy encampment and dropped four bombs without doing much damage. Airship P2 then turned west towards the Tunisian frontier before following the coast back to the Ras al-Makhbaz peninsula.

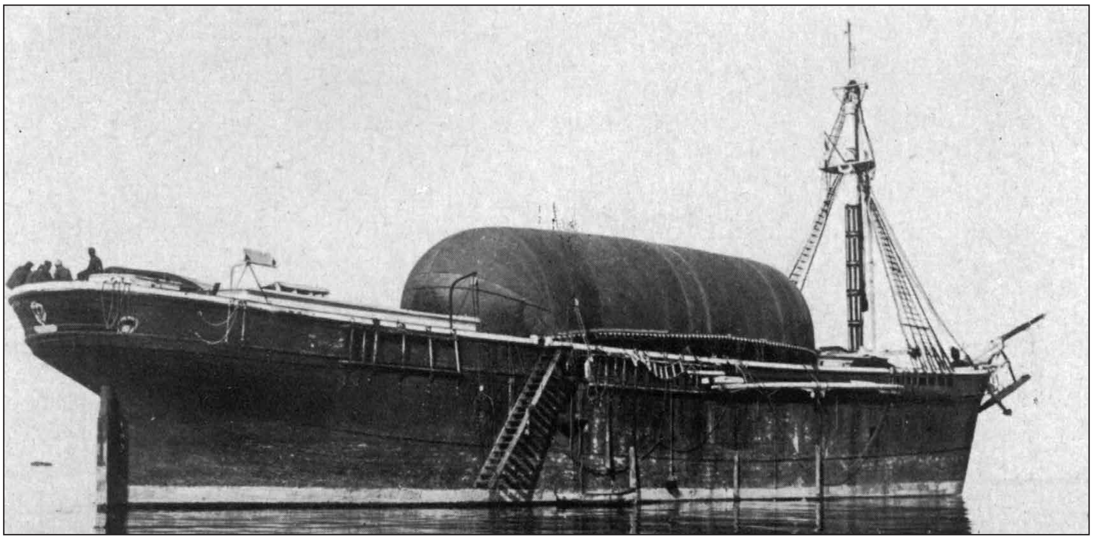
Meanwhile P3 followed the coast westward to the Tunisian frontier, being shot at by small groups of enemy forces on the way. After dropping a message on an Italian advanced post at Bu-Chemmasc, informing them that the territory up to the frontier appeared to be weakly defended, P2 and P3 prepared to refuel and top up the hydrogen gas which maintained their lift. The hydrogen was urgently needed because both airships had already lost gas as a result of enemy ground fire. However, rough seas made this impossible, and so the mission had to be aborted. Instead P2 and P3 headed back to base, reaching Tripoli with difficulty.

Another first was recorded on 11 June 1912 when the first night-bombing was carried out by Captain Marengo. Over a month later there was another first when Lieutenant Manzini's aeroplane fell into the sea on 25 August; the pilot being the first airman to die on active service.

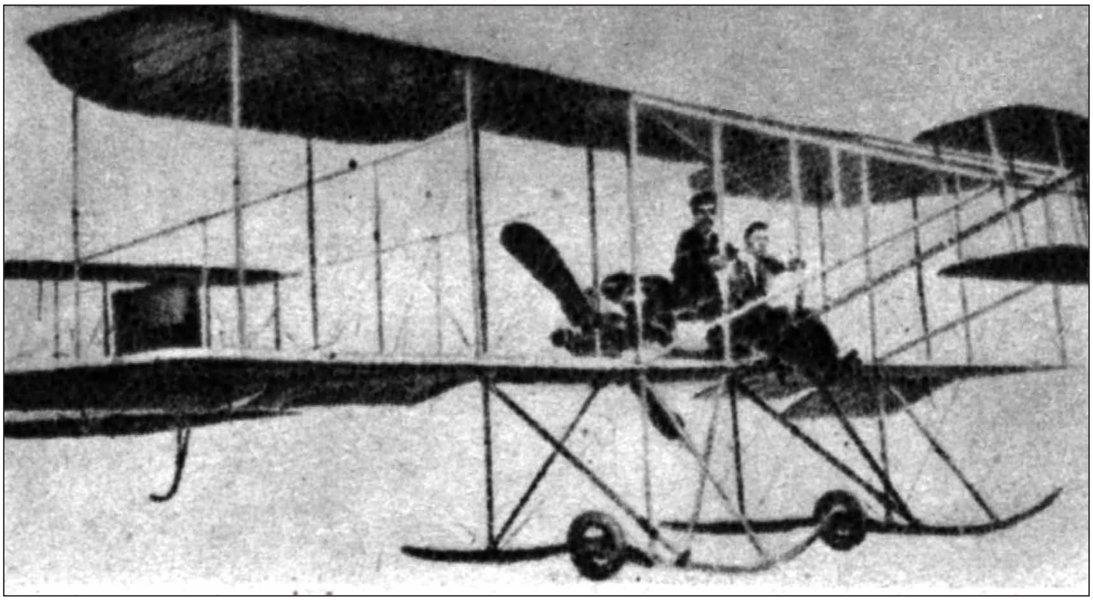
Three days earlier, command of the airship detachment had passed to Lieutenant Julius Valli who would remain in charge until the end of the Libyan campaign. By the official cessation of hostilities on 20 October 1912, the Italian semi-rigid naval airship P2 had made seventy-one flights while P3 had made fifty-six. Most of these were reconnaissance missions but three hundred and thirty bombs of various types had also been dropped on Libyan positions.

Away to the west, the Cyrenaica front had always been secondary and here air support was initially entrusted to a squadron of civilian volunteers who flew an interesting variety of aeroplanes. These machines included a floatplane version of the large three-seater Breguet Type 1911 which entered service with the Italian Navy. There was also a three-seater Deperdussin Type "Concours Militaire 1911" with an in-line 100 hp Clerget engine. This operated from the Italian enclave at Derna, flown by pilots Cesaroni or Dal Mistro. Most unusual of all was the Asteria, the first entirely Italian-built aircraft. Designed by the famous engineer and automobile pioneer Aristide Faccioli, and constructed in 1911 by the Darbesio-Origoni Company based at Turin's new Mirafiori aerodrome, one example was purchased by the Italian Army. It was sent to Benghazi, probably in 1912, where it was flown by another civilian volunteer pilot, G. Rossi.

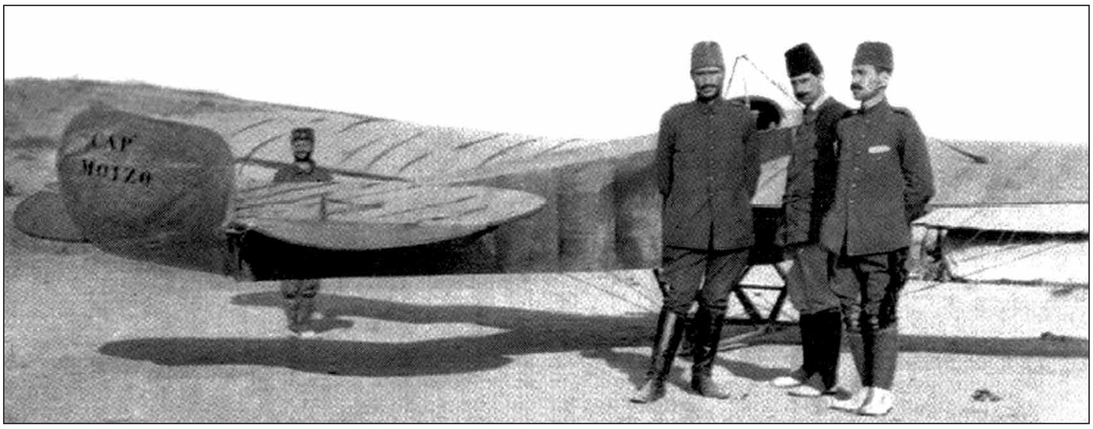
By spring 1912, the Italian 2nd Special Division held Tubruq, Derna and Benghazi but from these enclaves it faced a determined



The old sailing brig *Caval Marino* had been converted into an Italian observation balloon tender. During the Italo-Libyan war she directed the fire of Italian warships against enemy coastal positions, for example being towed into position by the *Ercole* to support the guns of the battleship *Umberto*.



The Asteria was the first successful, entirely Italian built aeroplane. Constructed by the Darbesio-Origoni Company in Turin, it was used by the Italian Army over the rather isolated military front in Cyrenaica, in eastern Libya, in 1912.



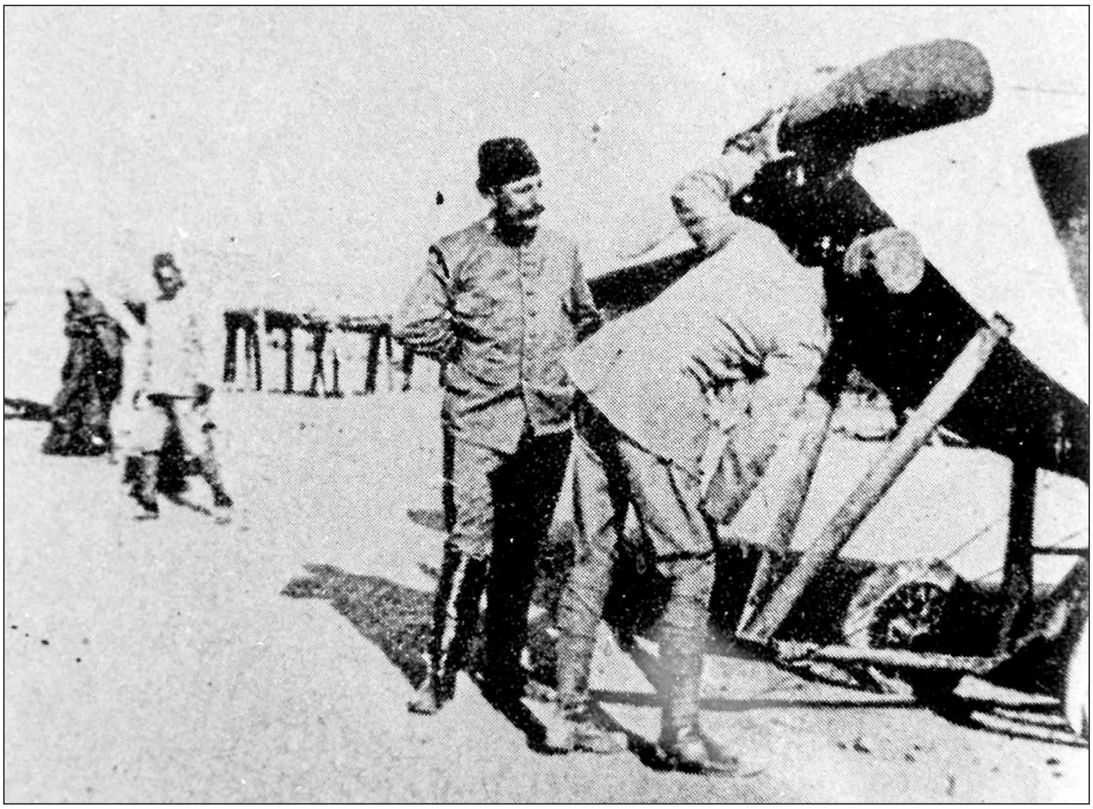
Moizo's Nieuport IV.G was forced down by an Austrian mountain artillery gun set up as an anti-aircraft gun by Abd al-Aziz al-Masri. This Ottoman officer of Egyptian origin commanded many of the Ottoman forces in western Libya. He may also be the booted officer on the right, standing in front of Riccardo Moizo's captured Nieuport, though this person is sometimes identified as Fethi Okyar, the former Ottoman military attaché in Paris. (Turkish Military Museum photograph)

enemy hidden in the valleys and gorges of the Jabal Akhdar (Green Mountains). The Italians were soon supported by the Italian Navy's semi-rigid airship P1 which had been dismantled and sent to Benghazi. Here, it was operated by a unit commanded by Lieutenant Augustine Penco which disembarked from the steamer *Circe* on 13 May. The P1's first flight in Libya was just under three weeks later in 29 May 1912. The Cyrenaica front largely stabilized during April after the "Battle of the Two Palms", and from then on the P1 flew many reconnaissance missions, mainly towards the Libyan held oasis of Suani Osman, north-east of Benghazi. Occasional bombing missions were also carried out, the last of which was on the moonlit night of 6 July against an Ottoman and Arab encampment. At the end of September 1912 the P1 was nevertheless deflated and dismantled before being shipped back to Italy.

Back in Tripolitania the Italians had been preparing for a major assault against Zanzur; an operation which required air reconnaissance. However the Blériot flown by Novellis, upon which they were relying, suffered technical problems and was only able to make three flights. The Italian military command fell back upon the reliable Nieuports which were operating at Zuara and Fàrua. At 0600 on 10 September Captain Riccardo Moizo took off from Zuara and headed for Tripoli while Lieutenant Sacerdoti flew from Fàrua via Zuara to Tripoli. Sacerdoti arrived safely but was unable to make any further flights before returning to Italy.

Meanwhile Capt. Moizo was, according to Italian sources, forced by engine trouble to make an emergency landing in enemy territory. When Moizo did not arrive, a search was ordered and an Italian torpedo boat was even sent to spend the night of 10-11 September sweeping the nearby beaches with its searchlight in the vain hope of seeing the missing pilot. Back in Italy there was widespread concern because Captain Moizo was widely known and admired by the general public. Local "informants" had also been sent to get news of the missing pilot and it did not take

Moizo's Nieuport IV.G monoplane was taken in triumph into Aziziya, a town near Tripoli where the Ottoman defenders of Libyan Tripolitania had their headquarters.



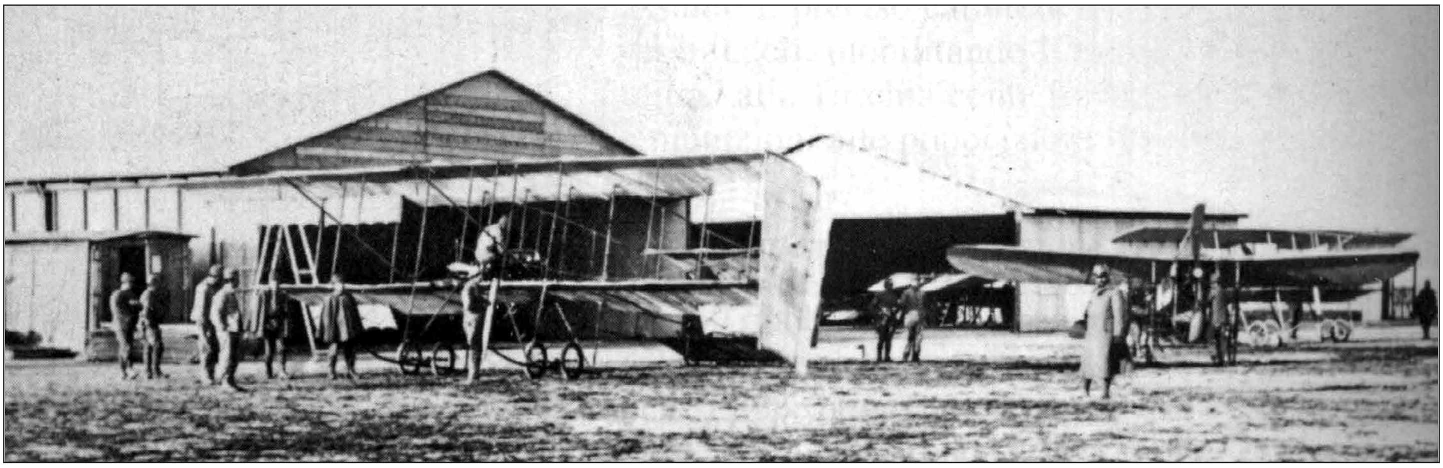
An Ottoman officer wearing a dark kalpak hat inspects the damage to Moizo's downed Nieuport in Aziziya, perhaps accompanied by Ten. Moizo himself. Moizo would remain a prisoner-of-war for many months, though he was able to send a reassuring telegram to his family via French occupied Tunisia. (Turkish Military Museum photograph)

them long to return with news that the Italian airman had been captured. On 12 September the news was officially confirmed by the Ottoman authorities, but what is less clear is whether this information came from the Ottoman command in Azizia, or from the Ottoman commander Aziz al-Masri. The Ottoman commanders were certainly behaving in a chivalrous manner because almost exactly forty-eight hours after capturing Captain Moizo they allowed him to telegraph a message, via the French telegraph system in Tunisia, to his sister in Turin. This read, in French; "Remain calm, I am doing well. Riccardo".

In reality, Capt. Moizo had been the first military pilot to be brought down by enemy fire. Turkish sources state that he was brought down by rifle fire, but according to Col. Abd al-Rahman Zaki, the first Director of the Egyptian Military Museum in Cairo who had been a friend and pupil of Aziz al-Masry, the anti-aircraft position which shot down Capt. Riccardo Moizo's Nieuport monoplane was under al-Masry's command. The gun itself was an old Austrian mountain artillery piece which, already having a high angle of fire, Aziz al-Masry had ordered to be remounted to fire almost vertically. It was this ad hoc anti-aircraft gun which actually brought down the aeroplane, rather than fire from nearby Libyan irregulars, at around 0800 on the morning of 10 September 1912. The aircraft's engine was apparently damaged, forcing Moizo to make an emergency landing near Zanzur (Janzur).

Armed only with a Browning pistol, the Italian pilot had no real chance of resisting and was captured by Libyans who handed him over to the Ottoman headquarters at Aziziya. There Moizo was questioned by Fethi Bey and made the following interesting statement; "I saw many soldiers in the places that I passed over, but when I landed I realized they were fewer [than I had thought]' From high altitude the desert shrubs looked like troops". Riccardo Moizo had, in fact, recently passed his thirty-fifth birthday and was a highly experienced officer who had attended the Italian Army Staff College. Having shown great interest in aviation, he attended several specialization courses and gained his pilot's wings on 30 May 1911. Qualifying as a military pilot on 1 August, he specialised in the speedy Nieuport monoplane. Now, however, Moizo become a prisoner of war, while his intact aeroplane had also fallen into enemy hands. A photograph of some Ottoman officers standing next to the Nieuport, which had Moizo's name on its rudder, subsequently appeared in the Ottoman Turkish press. Later, a second Italian machine fell inside enemy lines, either having suffered an engine malfunction or being hit by rifle fire.

Riccardo Moizo was repatriated shortly after the end of the Italo-Ottoman War and, being no longer fit for flying duties. He joined the 2nd Mountain Artillery Regiment mountain in November 1913 before returning to the air service as a staff officer. Moizo's subsequent career in the Italian Air Force was an interesting one, though it would bring him political problems at the end of the Second World War. Nevertheless, Riccardo Moizo was cleared of



The struggle in Libya would go on for much longer than the Italian government had expected. Even after the Treaty of Lausanne on 18 October 1912, which ended the officially declared war between Italy and the Ottoman Empire, local resistance continued. So did the vital role of Italian aeroplanes such as the two Blériots and a Henri Farman Type 1911 seen here around 1913-14.

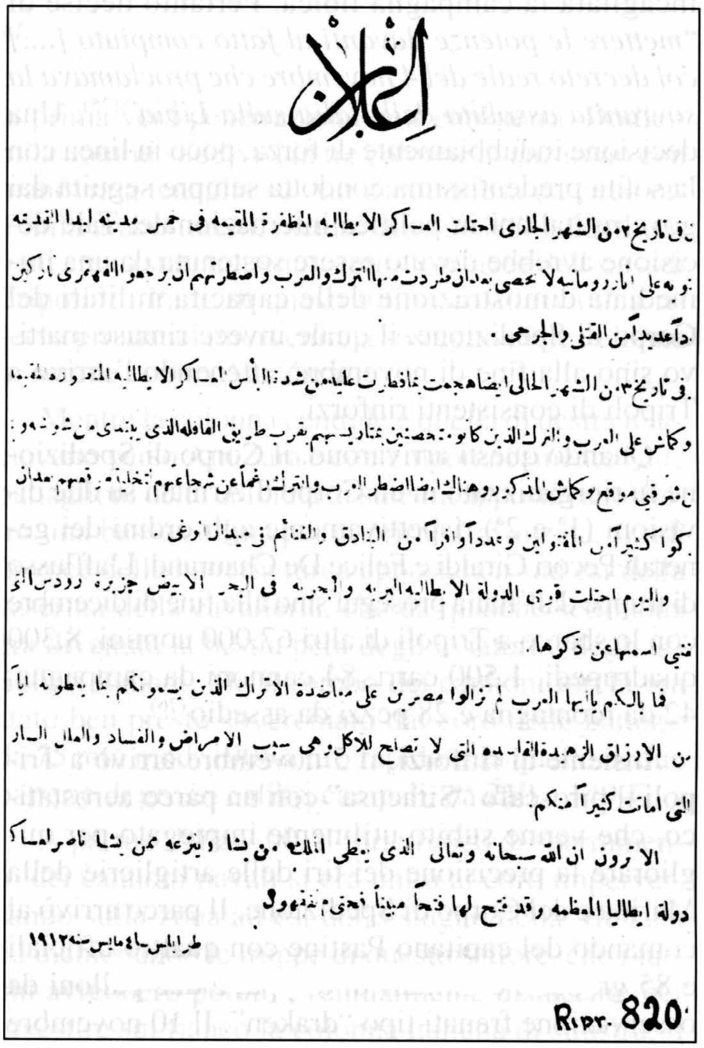
Italian aeroplanes achieved so many firsts during the invasion of Libya that the work of tethered observation balloons tended to be forgotten. Nevertheless, they played an important part in this campaign. (Stato Maggiori Aeronautica photograph)

all wrongdoing. Meanwhile, Aziz al-Masri would also have a highly eventful career, which brought him into occasional conflict with the British in Egypt.

Italian operations against their Ottoman and Libyan foes in North Africa have naturally attracted considerable attention, but Italian airmen were also active on a smaller scale in the Aegean. Here, on 14 May 1912, aircraft dropped bombs on Ottoman supply depots on the island of Rhodes. In fact the Italian assault upon this and other Dodecanese Islands was widely welcomed by the international community as a way of bringing a close to a war which had gone on much longer than anyone initially expected. It was eventually brought to an end by the Treaty of Ouchy (also known as the First Treaty of Lausanne), which was signed on 18 October 1912. Under its terms the Ottoman government agreed to withdraw its troops from Libya while the Italians agreed to hand back the recently occupied Dodecanese Islands.

In the event neither of these things happened. By now Italian forces controlled most of the Libyan coast but were otherwise confined within seven enclaves in Tripolitania and Cyrenaica which could be supported by Italian naval gunfire. By that time the Italians had also used four captive observation balloons, three airships and twenty-eight aircraft in Libya. Some types had proved more successful than others, though these were not always the most modern. For example, antiquated Henri Farmans with reduced span lower wings had proved particularly reliable, if very slow, and had done excellent service in all the four units or squadrons. The Nieuports were fast, modern and reliable. Consequently this type would soon be manufactured under licence in Italy. The Blériots proved so suitable for the unforgiving conditions of North Africa that some of them were still serving against Libyan “rebels” in 1922. However, following the Treaty of Ouchy, most of these aircraft were brought back to the Italian mainland where the Taubes reportedly took part in a big air display by thirty-two aircraft in eight Flights (four Squadrons) at Mirafiori aerodrome on 13 January 1913. Here medals were also handed out by the Duke of Genoa and the Duchess of Aosta; Guilio Gavotti receiving the Silver Medal of Valour.

The lessons learned by the Italians during the Libyan conflict, including the operation of airships over the sea, would stand them in good stead during the upcoming First World War. In many other respects the lessons learned from the work of airships P1, P2 and P3 were far from clear and may indeed have led to some wrong conclusions, as the First World War would soon show in brutal fashion. Atmospheric conditions had meant that the airships usually flew no higher than 1,000 metres. During their first ten ascents, the P2 and P3 had consequently been hit by no less than sixty bullets. During one reconnaissance mission on 19 March, the P2 alone had been hit no fewer than thirty times. Most damage was to the airships’ envelopes, usually towards their stern showing that enemy on the ground had not yet learned to “aim off” to compensate for



إعلان

ن في تاريخ ٢٠ من الشهر الجاري احتلت العساكر الايطاليه المظفرة المقيمه في حمص مدينه ابدا القديمه
نو به على آثار رومانيه لا تحصى بعد ان طردت منها الترك والعرب واضطرتهم ان يرجعوا القهقرى تاركين
دا عديدا من القتلى والجرحى .
في تاريخ ٣ من الشهر الحالي ايضا هجمت بما فطرت عليه من شدة البأس العساكر الايطاليه المذ وزه مقيمه
وكاش على العرب والترك الذين كانوا متحصنين بمتاريسهم بقرب طريق القافله الذي يبتدي من شوشو
ن شرقي موقع وكاش المذكور وهناك ايضا اضطر العرب والترك رغماً عن شجاعتهم تخلية وتقدمهم بعدان
كوا كثيراً من القتلى وعدداً وافراً من البنادق والغنائم في ميدان الوغى .
واليوم احتلت قوى الدولة الايطاليه البريه والبحريه في البحر الابيض جزيرة رودس التي
غني اسمها عن ذكرها .
فما بالكم يا ايها العرب لم تزالوا مصرين على معاضدة الاتراك الذين يطعمونكم بما يعطونه ايا
ن الارزاق الزهيدة الفاسده التي لا تصلح للاكل وهي سبب الامراض والفساد والملل الــار
التي امات كثيراً منكم .
الا ترون ان الله سبحانه وتعالى الذي يعطي الملك من يشاء وينزعه ممن يشاء ناصر لعساك
دولة ايطاليا المعظمه وقد فتح لها فتحاً مبيناً نعني [illegible]
طرابلس ١٤ مايس سنه ١٩١٢

Ripr. 820·

One of the leaflets dropped from Italian aeroplanes over Tripoli (Tarablus al-Gharb) in 1912, urging the inhabitants to welcome their invaders as protectors.

The famous Italian electrical engineer Guglielmo Marconi took advantage of the Italian invasion of Libya to further his research into long distance radio communication. Here he is shown working on the new aerodrome established outside Tubruq in the east of the country.

the target's movement.

It had been almost universally assumed that the moral impact of airships and aeroplanes upon soldiers on the ground, especially non-European soldiers and even more so tribal warriors, would have been very great. Much to the surprise of most observers, this moral impact had declined rapidly as the Ottoman officers and their Libyan auxiliary troops got used to being observed and occasionally attacked from the air, especially as such attackers were almost invariably very inaccurate. In contrast, the quality and usefulness of the Italians' aerial reconnaissance came as a pleasant surprise to their high command. One report sent by the commander of the airships in Tripoli stated that;

> At 1,000 meters the visibility was perfect, distinguishing with the utmost clarity Turkish uniforms from the dress of Arab Bedouin, [and picking out] camels and tents. However, it is to be noted that the terrain offered exceptionally favourable viewing conditions and that in this respect, much less would be visible in a country like ours [Italy] which is covered by dense vegetation .

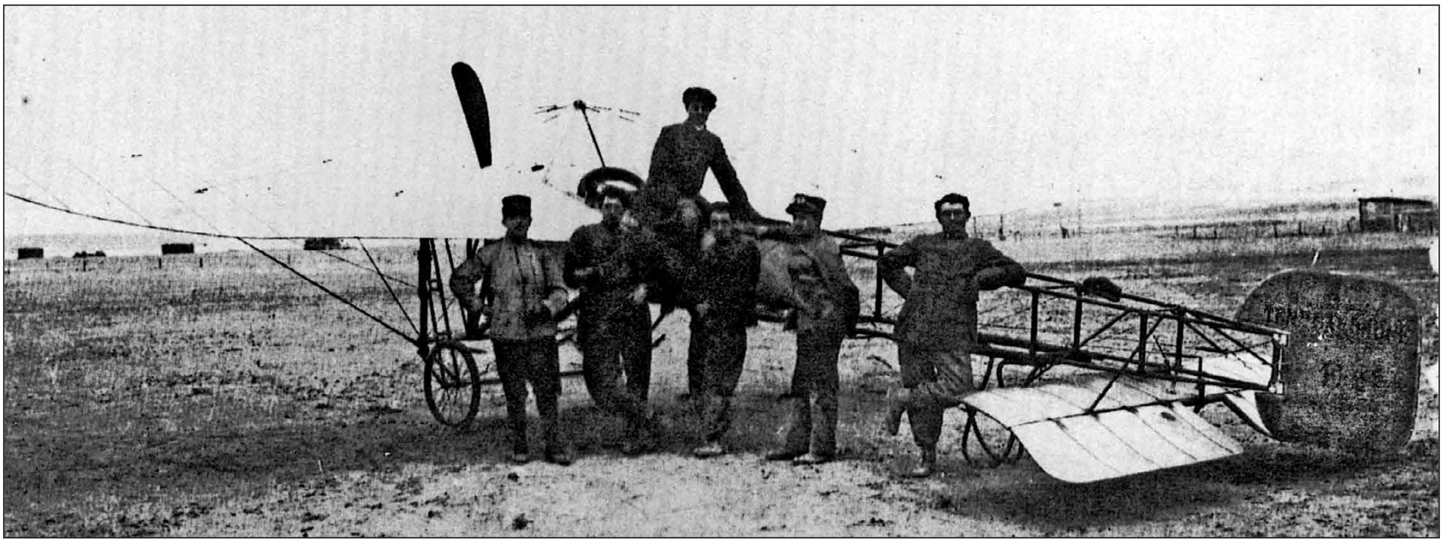
During the Libyan conflict aerial photography had been used with great success to correct the few existing maps, eventually producing a mosaic of 500 images taken of the Tripoli area from a height of 500 metres. The bombs dropped by the Italians were of the shrapnel type with percussion fuses and had not been very effective in sandy soil or against moving targets such as running men, horses or camels. More suitable bombs with adjustable fuses would soon be adopted, however.

The official end of the war came before the Italians' new M (Medium-sized) Type of airship could be used. Although airship P1 had been sent home from Benghazi, P2 and P3 continued to operate in Tripolitania for the rest of 1912, carrying out reconnaissance, supporting map-making, and dropping propaganda leaflets in Arabic. The first such drop of propaganda leaflets was undertaken on 15 January 1912, the first leaflet proclaiming in Arabic;

> Arabs, why do you hesitate in coming to us? Do you not hear the call to prayer from your windows? Do you not want to live in peace with your families? We also have our Holy Book, and we are honorable and we are devout. Italy is your father, because our mother, your mother, is wedded to Tripoli.

New crew members were sent to Libya to train as airship pilots and on 28 November the P2 was called upon to carry out a rather surprising new task, by pulling a silhouette of a Blériot monoplane. This was then shot at by riflemen aboard a second airship, P3. This proved so difficult that the experiment was not a success. Yet it was a new first in the story of aerial warfare and hinted at what was to come. On 19 and 22 January 1913 the P3 and P2 were deflated, both being shipped back to Italy later that month, thus ending the participation of semi-rigid naval airships in the Libyan conflict.

On 14 January the Ottoman governor and most of his men also left Libya. Despite this, and the Treaty of Ouchy, the conflict in Libya continued while the formidable Egyptian-Ottoman General Aziz al-Masry remained behind in the Jabal Akhdar hills of Cyrenaica with a small party of Ottoman volunteers. He had probably been urged to do so by the Khedive of Egypt while, for its part, the Ottoman government turned a blind eye. Al-Masry's dedicated volunteers were of course Muslims, and they included Arabs, Circassians, Albanians, Kurds, Egyptians and men from every corner of what



Between the start of the Libyan war in 1911 and Italy's entry into the Great War in 1915, the markings given to Italian military aircraft changed several times. The first official system ordered that the name and rank of the pilot who flew the machine must be painted on the aeroplane's rudder. The Blériot XI shown here in Tripoli is that of Tenente Oreste Salone. Beneath his rank and name is the number E.2. (Stato Maggiori Aeronautica photograph, via F. Pedriali)

remained of the Ottoman Empire.

During the early part of the Italo-Ottoman war the Libyan Sanussi brotherhood had barely been involved for the simple reason that the Sanussi movement was itself opposed to Ottoman rule. Now, however, the Sanussi came to the fore as leaders of the Libyan resistance, a role they would continue to play until after the Second World War. Thereafter these varied local and volunteer forces fought on with some success and in May 1913, after the Italians had enjoyed a number of minor successes, al-Masry inflicted a significant defeat upon the invaders near Derna in the "Battle of Etangi". The following month the Italian garrison in Derna was reinforced and, despite secret help from both the Ottoman Empire and Egypt, the tide now turned against the resistance. Constant Italian pressure and increasingly effective air attacks gradually broke the Libyan military formations into ever smaller fighting groups.

Aziz al-Masry then seems to have quarrelled with the Sanussi leadership and towards the end of 1913 he and his approximately 600 "regular" Arab troops withdrew into Egypt. The Italians seized their opportunity and returned to the offensive, retaking Etangi. Meanwhile al-Masry himself travelled back to the Ottoman capital of Constantinople but again found himself less than welcomed by some of his old colleagues in what had been the Committee of Union and Progress (CUP). In April 1914 Aziz al-Masry was arrested and expelled from Constantinople. In fact Enver Pasha, his rival from the Libya war, denounced al-Masry as an Arab revolutionary who wanted an Arab uprising against Ottoman rule. This was untrue but the accusation damaged Aziz al-Masry's reputation amongst those who sought Arab-Turkish cooperation within a reformed Ottoman Empire. Another friend and colleague in the CUP, Jamal Pasha (who would later become the virtually autonomous governor of Ottoman Syria during the First World War) managed to get al-Masry pardoned. Even so, Aziz al-Masry had little choice but to return to the land of his birth, Egypt.

During the Libyan War of 1911-12, the British in Aden had grown concerned by increased comings and goings between Italian-ruled Eritrea and the Yemeni coast. This would soon develop into rivalry between the two colonial powers, Britain and Italy, for influence in Yemen. Meanwhile in Libya itself fighting continued and appeared to going in Italy's favour, with more Sanussi centres being occupied during a major offensive early in 1914. By July, Italian troops were in full control of Tripolitania in western Libya and had advanced deep into the Sahara Desert to take Fezzan. On the other hand, the Italian situation remained far more difficult in Cyrenaica where the Sanussi had their spiritual, economic and military heartland. Here, in the mountainous Jabal Akhdar, the Sanussi continued to put up determined resistance, secretly helped by Egyptian sympathisers and the Ottoman Empire which could still channel a certain amount of support through Egyptian territory. The world was then turned on its head by the outbreak of the First World War.

3

THE FORMATION OF OTTOMAN AIR ARMS (1911-1914)

Neglected by most aviation historians, often misrepresented by others, the Ottoman Army and Navy air units were the first indigenous air forces in the Middle East. By 1918 they had also developed into the largest and most effective air arm in the Balkans. Nevertheless, outside Turkey itself the Ottoman air units tend to be seen through the eyes of enemies who denigrated their achievements, or of German advisors who exaggerated their own role while dismissing that of their French predecessors. As a result, Ottoman squadrons too often seem like minor off-shoots of the Imperial German Luftstreitkräfte and Marine-Luftstreitkräfte.

The circumstances of the creation of this, the direct ancestor of the modern Turkish Air Force, were not favourable. For two hundred years, the Ottoman Empire had been losing territory and was generally regarded as the "sick man of Europe". Nevertheless, a process of determined modernisation, particularly in military fields, had started early in the 19th century and as a result the Ottoman Army remained a formidable force up to and throughout the First World War. It is also important to note that the Ottoman Empire, like the Muslim world in general, had no cultural resistance to the idea of aviation. The real problem was that, for centuries, scientific progress was dominated by a despised yet feared Europe. Consequently, the Ottoman élite swung between reactionary conservatism and enthusiasm for the latest European military gadgets.

The Young Turk Revolution of 1908 was intended to usher in a period of real democratisation, Westernisation, and industrialisation.

Instead it led to a military dictatorship beneath a figurehead Sultan, though also to some degree of westernisation amongst the urban elite and certainly to stirrings of industrialisation in Constantinople (Istanbul). One reason for the Young Turks' relative failure was the enormous military pressure bearing down upon the Ottoman Empire between 1908 and 1914. Fine ideals were one thing – sheer survival quite another. First came the unprovoked Italian invasion of Ottoman-ruled Libya (1911-12) and its occupation of the Dodecanese Islands in the Aegean.

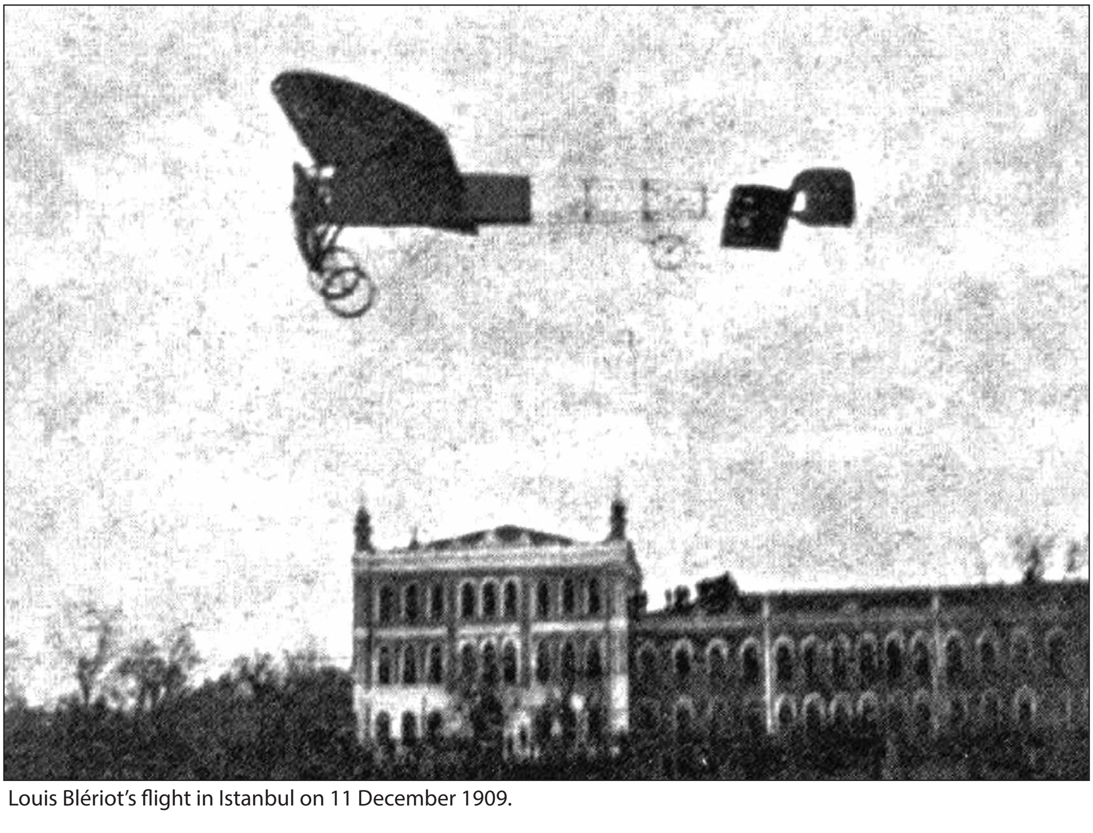
Then came a similarly unprovoked, though perhaps more justified, combined attack by Greece, Bulgaria, Serbia and Montenegro in the First Balkan War (1912-13). This was a catastrophe for the Ottoman Empire, which lost all its remaining European provinces except a small enclave around the capital at Constantinople. However, this was considerably enlarged during the Second Balkan War (1913) when the Ottomans joined with several Balkan states to punish an overconfident Bulgaria. At the same time the Russian Empire threatened to support Armenian rebels in eastern Anatolia and the first stirrings of Arab nationalism were felt in Syria. During these troubled years, most European states established their first tiny air forces; that of the Ottomans' most threatening neighbour Russia dating from 1910. Several Balkan states also purchased aircraft, as did the Ottoman Empire itself.

The French balloonist Barbotte ascending from Taxim Square in Istanbul in May 1909. He was accompanied by the French journalist Henri Turot and two Ottoman volunteers.

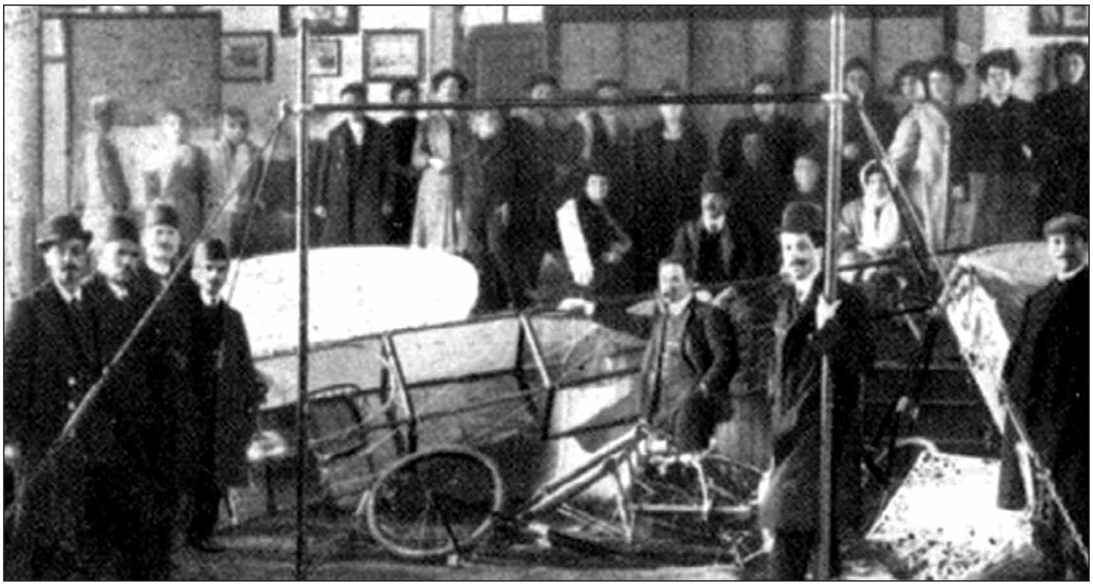
On 27 May 1909 a Frenchman, Ernest Barbotte, had ascended in a hydrogen-filled balloon from Istanbul's Taksim Square with Capt. Muhtar Bey and Engineer Mahmut Bey as passengers. Other demonstration flights followed and Mahmut Şevkat Paşa, the Ottoman Minister of War, started to take a serious interest in military aviation. In June 1911, Lt. Col. Süreyya Bey of the General Staff was charged with establishing an aviation station and flying school near Istanbul. Meanwhile a Drachen captive kite-balloon was ordered from the Parseval company in Germany. This was raised over Adrianople (now Edirne) during the Bulgarian siege of the city in the First Balkan War; its first operational ascent being on 6 November 1912. Despite vigorous Bulgarian attempts to shoot it down, this Drachen balloon survived to serve again during the First World War.

Next the Ottoman government purchased a Parseval P9 dirigible powered by a 50 hp engine and capable of carrying several 40kg bombs. A special hanger was built at San Stefano (Yeşilköy), just west of Istanbul, while a military balloon detachment of five officers and one hundred men was formed. After only two flights the P9 was crashed by its German pilot, though without loss of life, and the Ottomans promptly cancelled their contract with Parseval. The damaged dirigible was decommissioned and the balloon section was temporarily disbanded.

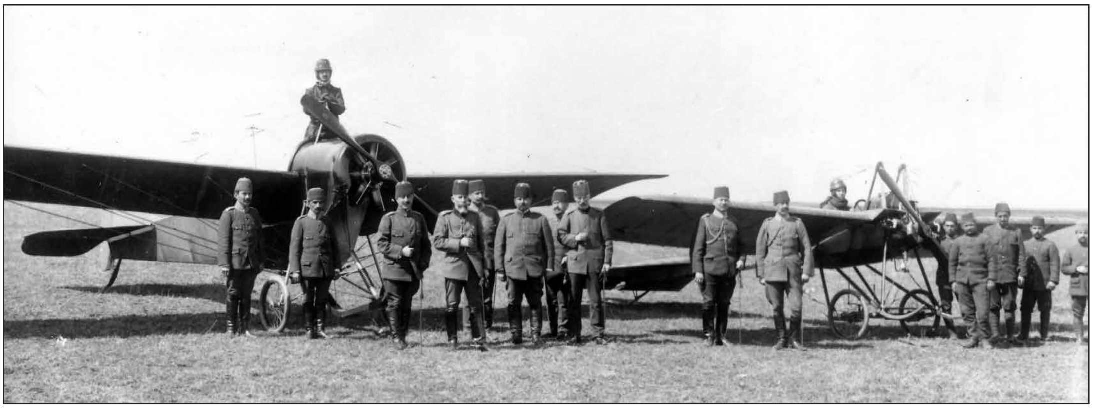
The Ottomans' efforts with heavier-than-air aviation were more successful. The Belgian Baron Pierre de Caters brought an early Voisin aeroplane to Constantinople. Then, in November and December 1909, no less a pilot than Louis Blériot himself flew over the Ottoman capital. Although Blériot's monoplane came to grief, the Ottoman Army was sufficiently impressed to send several officers for pilot



Louis Blériot's flight in Istanbul on 11 December 1909.



Unfortunately Blériot's brief visit to the Ottoman capital ended with a crash which virtually destroyed his monoplane, though fortunately without serious injury to Blériot himself.



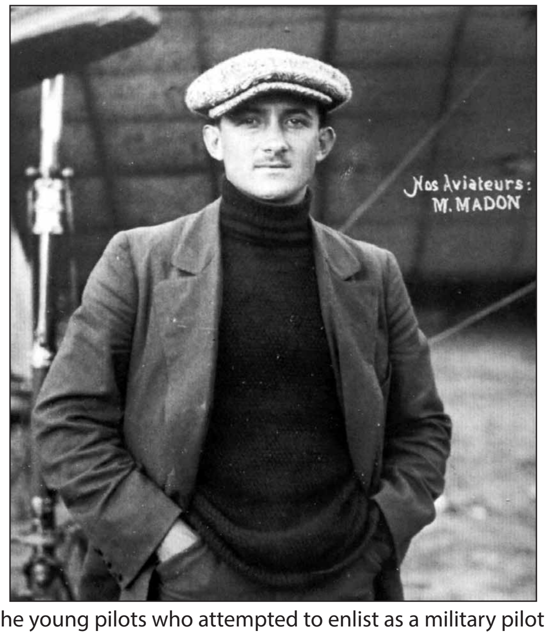
A newly delivered REP (left) and a Deperdussin TT (right) at the aerodrome of San Stefano (now Yeşilköy) being inspected by the Ottoman government's Minister of War, Mahmud Şevkat Paşa (with the white beard) on 29 April 1912. The recently qualified pilots are Yüzbaşı (Capt.) Feşâ Bey in the REP and Mülazım Evvel (First Lt.) Yusuf Kenan in the Deperdussin. (Turkish Army Museum photograph)

training at the Blériot Aviation School in France. The first two received their brevets in 1911: Cavalry Capt. Fesâ Bey (brevet no. 780) and Engineer Lt. Yusuf Kenan (brevet no. 797). The first aircraft purchased by the Ottoman government were also French, being a 35 hp Anzani powered Deperdussin single-seater and an 80 hp Gnôme powered Deperdussin two-seater, but these would not arrive until 15 March 1912.

Meanwhile war had erupted between the Ottoman Empire and Italy when the latter suddenly and without provocation invaded the Ottoman province of Libya (see Chapter 2). The Ottoman Army, of course, had neither aircraft nor observation balloons in Libya, which led to an extraordinary if ultimately unsuccessful attempt to obtain "air assets" by other means; namely the recruitment of French mercenary airmen and their aeroplanes. One of those involved in this little known episode was Georges Felix Madon. He would later become the fourth highest scoring French fighter pilot during the Great War (41 officially recognised victories) and was known to some as "The French Red Baron" because of his preference for having his aeroplanes painted red, like those of the German "ace", Manfred Von Richthofen.

Georges Madon was born in Tunisia in 1892 and, having learned to fly before the Great War, was a very rare example of a pre-war pilot who subsequently became a fighter "ace". Madon had, in fact wanted to fly from an early age, but it was when he saw the French exhibition pilot Bouvier fly over Tunis on 19 April 1911 that he decided to make his dream a reality. Tricking his parents into allowing him to go to Paris, Madon learned to fly at the Blériot school at Etampes where he obtained his brevet or pilot's licence (no. 595) on 8 September 1911. Throwing himself almost immediately into exhibition flying, he soon received offers of engagements in both America and Germany. These he declined because his obligatory military service was due. As Georges Madon also said, "He decided to return to Tunisia and reassure his mother, who was worried by reading about stories of air accidents in the press".

Meanwhile the war in Libya was still in its first months and many in France, not only the government and armed forces but also amongst the wider public, were concerned about Italy competing with France in North Africa. In April 1912, a French officer named Leblanc was sent to Constantinople to select suitable aerodromes, the first of which was to be at Yeşilköy (then called San Stefano) on the Marmara coast west of the Ottoman capital. Here two hangers were erected alongside what was already a redundant dirigible shed.



One of the young pilots who attempted to enlist as a military pilot in Ottoman service during the Italo-Ottoman or Libyan War was the Frenchman, Georges Felix Madon. Here he is shown about a year earlier at the Blériot Flying School at Étampes in 1911, Aged nineteen. Madon would later become one of his country's highest scoring fighter aces with forty-one confirmed victories, sometimes being called "France's Red Baron".

The Ottoman Army's first Deperdussin machines were shown in public for the first time on 23 April and the new flying school was officially opened on 3 July 1912.

Back in Tunis, Georges Madon had heard that the Ottomans were looking for airmen to fly for the Ottoman army against the Italians in Tripolitania. So he promptly returned to France to take possession of two aeroplanes which he intended to take to Tunisia under the pretext of organising flying exhibitions and perhaps air rallies there. Madon's real plan was to then take them to Tripolitania. He seems to have been part of a wider effort involving other French airmen and which still remains somewhat mysterious. What is certain is that two men named Orbe and Duval, were aboard the French liner *Carthage*, supposedly taking their flying machines to Tunisia for an air rally, when the ship was intercepted by an Italian Navy torpedo boat and obliged to sail to Sardinia in January 1912. The *Carthage* and its cargo was released when the Frenchmen promised that they would not take their aeroplanes to Libya, but not surprisingly this episode caused a diplomatic rumpus between France and Italy. Three years later the *Carthage*, which had been built in Britain in 1910, was being used as a troop transport in the disastrous Gallipoli Campaign when it was sunk off the Dardanelles by the German submarine U-21 on 4 July.

There were still two Ottoman officers in Paris at this time, while the Ottoman Minister of War, Mahmud Şevket Paşa, was actively trying to purchase aeroplanes. He was also endeavouring to get other suitable Ottoman personnel taught how to fly, as well as trying to recruit European pilots. On 18 April, 1912, Şevket Paşa ordered the purchase of an observation balloon and an airship for use against the Italian Navy which was bombarding Gallipoli and threatened to penetrate the Dardanelles. He even hoped to send military supplies to Tripoli by airship.

Also early in 1912, a merchant from Tripoli made a deal with two French airmen who agreed to secretly take their machines to North Africa. Whether these were Orbe and Duval is unclear. The Ottoman ambassador in Paris, urged by the civilian rather than the military arm of the Ottoman government, initially refused to give official blessing to the enterprise but after ten days of wrangling, and perhaps the interception of Orbe and Duval, an agreement was reached whereby Lieutenant Colonel Kerim Bey, along with the newly qualified Ottoman pilot Fesâ Bey and two French pilots, would take their aeroplanes to southern Algeria. From there they would either fly, or transport the disassembled machines on baggage camels, to the Ottoman lines outside Italian-held Tripoli. Several mechanics would also go with the camel caravan, each to be paid monthly 2,000 francs while the pilots would be paid 5,000 francs per month. In the event, Fesâ Bey was ordered to return to Constantinople while the rest of the team reached Biskra on the edge of the Sahara Desert. The French pilots then refused to cross the frontier into Tripolitania and the French colonial authorities seized the two aeroplanes.

A second attempt was nevertheless made, this time planning to use German made airships and balloons. They had been purchased by Lieutenant-Colonel Süreyya Bey who was currently visiting Europe and who helped set up this dramatic enterprise. By now the Italian Navy had cut all maritime links between the Ottoman Empire and Tripolitania, so Mahmud Şevket Paşa drew up an astonishingly ambitious plan. He envisaged airships carrying 2,500 tons of war material a distance of 2,500 kilometres. They would also carry four 100kg bombs along with radio and other forms of airborne communication devices.

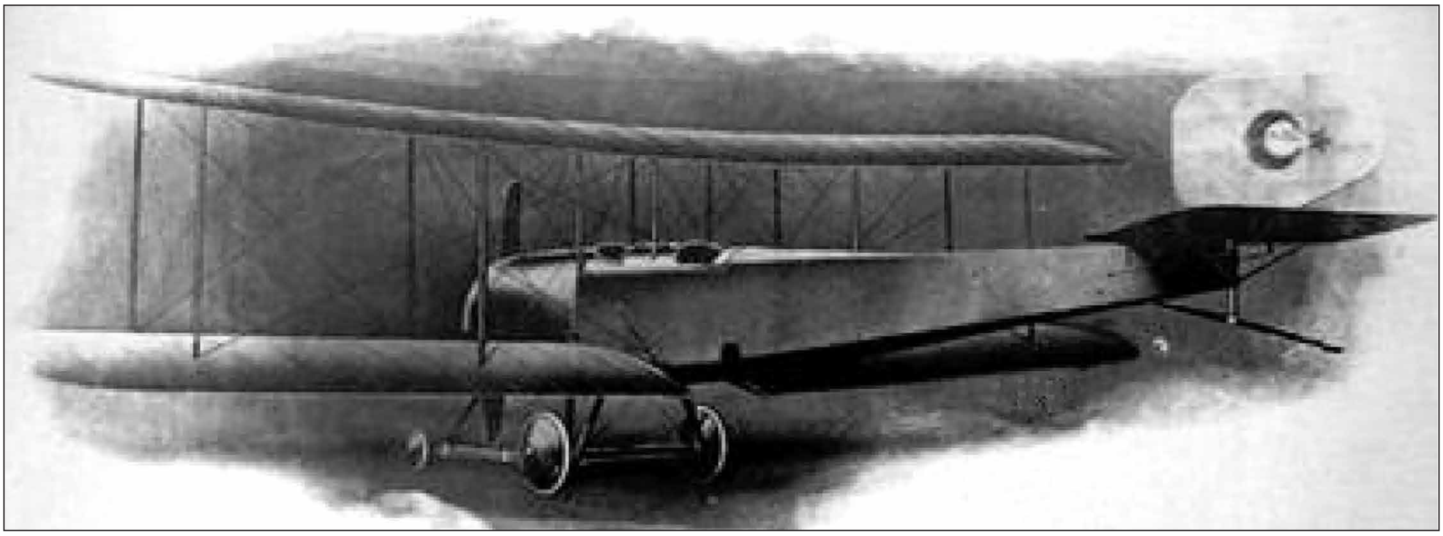
Souvenir amical
à Mon^r Simonet
son [illegible]
le 8. Août 12
Fesa

An autographed photo of Yüzbaşı Feşâ Bey with his red-painted REP at San Stefano (Yeşilköy). It is dedicated to Monsieur Simonet, who apparently taught Feşâ to fly, and is dated 8 August 1912.

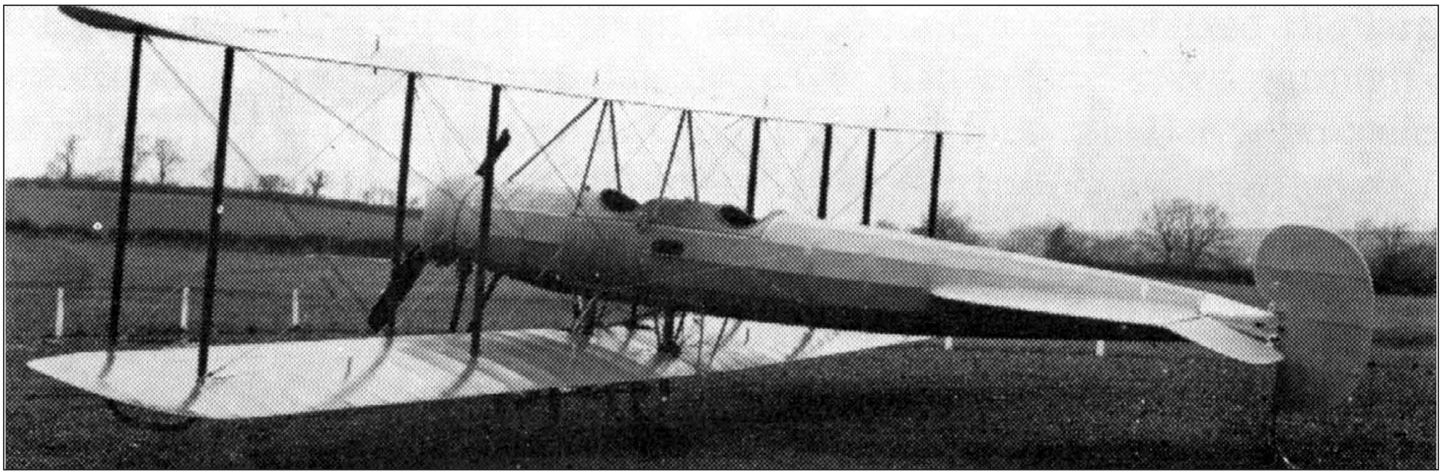
In May 1912, while the Ottoman delegation was in Germany, Mahmud Şevket Paşa learned that the Italians were themselves drawing up a plan to bomb Canakkale on the strategically vital Dardanelles with one of their own airships. So he immediately sent orders to the Ottoman military delegation, which was now in Germany, to enlist a German pilot whose most urgent task would be to support the Ottoman garrison in Rhodes, currently being invaded by the Italians. The delegation was also to speed up the purchase of machines capable of dropping bombs. Two German Harlan-type aeroplanes, plus suitable Nobel bombs, were therefore ordered, while a reward was offered to any foreign inventor who could produce bullets capable of bring down an airship.

The airship, which the Ottoman government hoped to buy should be capable of flying 5,000 km in fifty hours while carrying three tons of cargo. A Zeppelin was considered suitable for use against the Italians in Libyan Tripoli, and could be delivered in four to five months. The sale of such advanced and formidable war machines was nevertheless banned by the German government, so the Ottomans turned their attention to France. They also drew up a new plan to use smaller airships against Italian forces which were currently seizing control of the Dodecanese Islands. These plans proved to be quite impractical. It even proved impossible to purchase captive kite balloons in Europe if they were going to be used in Libya while the delivery of those destined for the defence of the Dardanelles and Bosporus Straits was delayed. So the Ottoman military mission returned empty handed and finally, on 18th October, a peace agreement between the Ottomans and Italians was signed.

The two provinces which formed Libya had been lost, along with the Dodecanese islands, most of which lay within sight of



This heavily retouched photograph of a Bristol G.E.2 (c/n 103) with a Gnome double-row 100 hp engine, was given supposed, but non-standard, Ottoman markings. This was done for publicity reasons as the Bristol Company was currently building the G.E.3 for the Ottoman Empire.

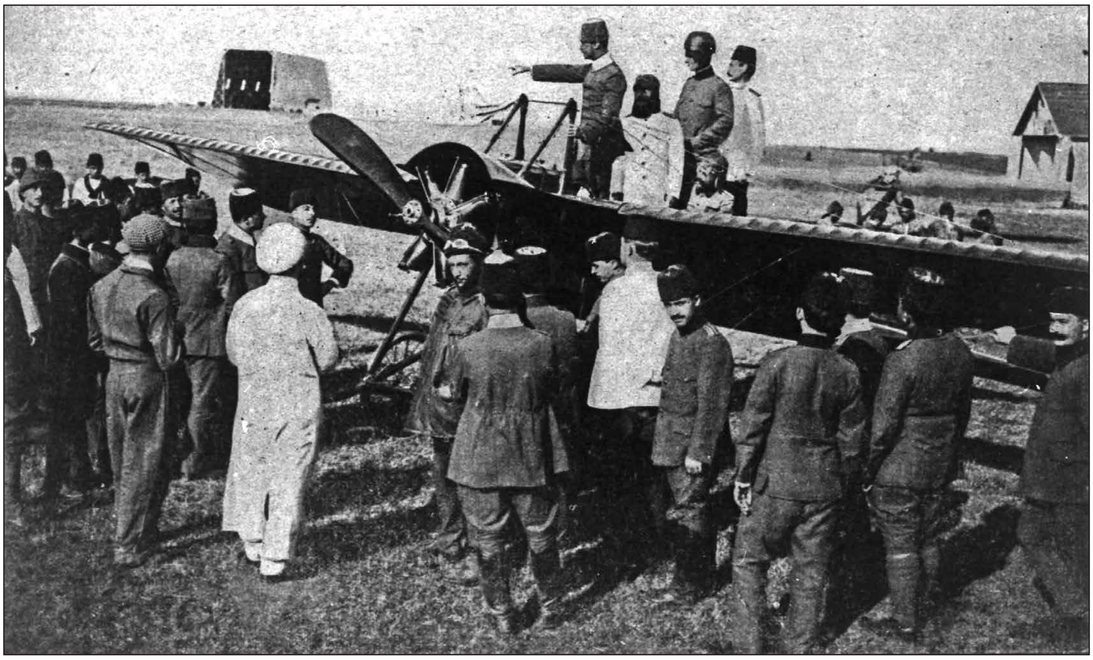


One of the two Bristol Gordon England G.E.3 biplanes (c/n 112 and 113) constructed for the Ottomans, photographed at Filton in England in November 1912. The G.E.3s never reached their intended customer because of an Italian naval blockade during the war in Libya and the Aegean.

the Turkish coast. Worse still, the First Balkan war had erupted ten days earlier, threatening the European heartlands of the Ottoman Empire. The only positive news seemed to be the arrival – at last – of a number of aeroplanes to form the nucleus of the Ottoman Army Engineering Corps' new flying component. By the end of 1912 the Ottoman Army had reportedly received no fewer than seventeen aircraft. Most were sturdy French REP monoplanes. Turkish records indicate that these deliveries included three versions: a 60 hp single-seater trainer, an 80 hp two-seater trainer and 70 hp two-seater reconnaissance machine. Other purchases included at least three Blériot XI-2 "Genie" two-seaters powered by 70/80 hp Gnôme engines, one or two German Harlan 100 hp Mercedes powered reconnaissance aircraft which were also capable of carrying bombs.

Two British Bristol Gordon England 3 biplanes (c/n 112 and 113) with 80 hp Gnôme-Lambda engines were also purchased but never arrived. The G.E.3 was developed from the Bristol Gordon England G.E.1 specifically for the Ottoman government, having a broader wingspan and longer endurance than the earlier variants. These were quite advanced designs, with fuel tanks pressurized by wind-driven pumps under the fuselage and wings, which could easily be detached so that the aeroplanes could be transported by rail or road. However, Bristol Aeroplane Company records also show that the wings initially proved to be too flexible, so a short bracing was added to the rear spar. This delayed delivery, by which time an Italian naval blockade had become effective as a result of the latter country's invasion of Ottoman-ruled Libya. No further developments were carried out but one heavily retouched photograph nevertheless shows a Bristol G.E.2 bomber in an unusual version of Ottoman markings with a crescent and star on its rudder, presumably painted red. In reality these markings had probably been added to the Bristol publicity photograph rather than to either of the actual G.E.3 aeroplanes, but similar "non-standard" markings would later be applied beneath the wings of at least one of the Pfalz A-II parasol monoplanes which the Ottoman Army air service sent to the Hijaz in 1916 (see Chapter 7).

The Bristol Gordon English G.E.3s had been purchased in March 1912 along with two vehicles for aircraft transportation, for delivery that summer; half of the price being paid in advance. The Bristol G.E.3s were to be bombers and the Ottoman team also negotiated the purchase of one hundred and twenty 3.5kg and sixty 15kg bombs. In the event the aeroplanes, and probably also the bombs, never reached the Ottoman Empire, because the ship carrying them was intercepted by the Italian Navy, its military cargo being seized. Bristol records indicate that two machines with construction numbers 86 and 88 were sold to the Ottoman Empire in July 1912 but these were monoplanes. The tail of one of the latter appears in a photograph with Ottoman officers and officials, the number and variety of whose fez (civilian) and kalpak (military) headgear strongly suggests it was taken in Ottoman territory, probably at San Stefano. The G.E.3 cannot really be described as a success, and



Before the First World War the Ottoman Empire chose Germany to advise on the modernisation of its army, Britain for its navy, and France for its tiny military and naval air arms. A French technical mission arrived at San Stefano (Yeşılköy) early in 1914, led by Capitaine Louis Marie Joseph de Goÿs de Mézeyrac, seen here standing in the cockpit of an Ottoman Deperdussin TT. (photograph from the French news magazine *Sur le Vif*, published a year later on 20 March 1915)

Gordon England left the Bristol Company shortly afterwards to join a design team working on a highly secret seaplane project. Nevertheless, some features of the G.E. biplanes would reappear a few years later in the far more famous Bristol F.2 Fighter designed by Frank Barnwell, including raising the fuselage on short struts above the lower wings.

Meanwhile eight more Ottoman officers earned their pilot's brevets, two of them at their own expense as civilians. This fledgling Ottoman Air Force was now thrown into the catastrophic First Balkan War, which started without warning on 8 October 1912 even before the war with Italy had formally come to an end. Within a month, the great Islamic city of Adrianople (now Edirne), 200 kilometres west of the capital, was besieged by Bulgarian troops. The whole of eastern Thrace then fell to the invaders before they were halted at the strongly defended Çatalca lines just west of Constantinople.

When the First Balkan War broke out, the Ottoman Army only had a handful of qualified pilots and aeroplanes available for operational use. These were promptly divided between the Western and Eastern Armies, being based at Thessaloniki and San Stefano (Yeşilköy) respectively. One Blériot, one REP, two Turkish and one French pilots, plus two Turkish observers, went to Thessaloniki. Two Harlans, several Ottoman and two German pilots under the command of Capt. Kemal were held back at San Stefano. It seems that some of the latter had originally been destined for Adrianople, but that fortress-city was besieged before men or machines could reach it.

The REP monoplane attached to the Western Army soon fell into Serbian hands following the Ottoman defeat by a combined Serb and Montenegrin force at the battle of Kumanova (23-24 October 1912). This was, however, promptly crashed by a Russian pilot named Agafonoff who had been flying for the Serbs. Shortly afterwards Thessaloniki fell to the Greeks though two Ottoman pilots, Fesâ and Nuri, plus the observer Fethi, escaped by sea to Constantinople with help from the British Consul. Another observer named Abdullah was captured by the Greeks.

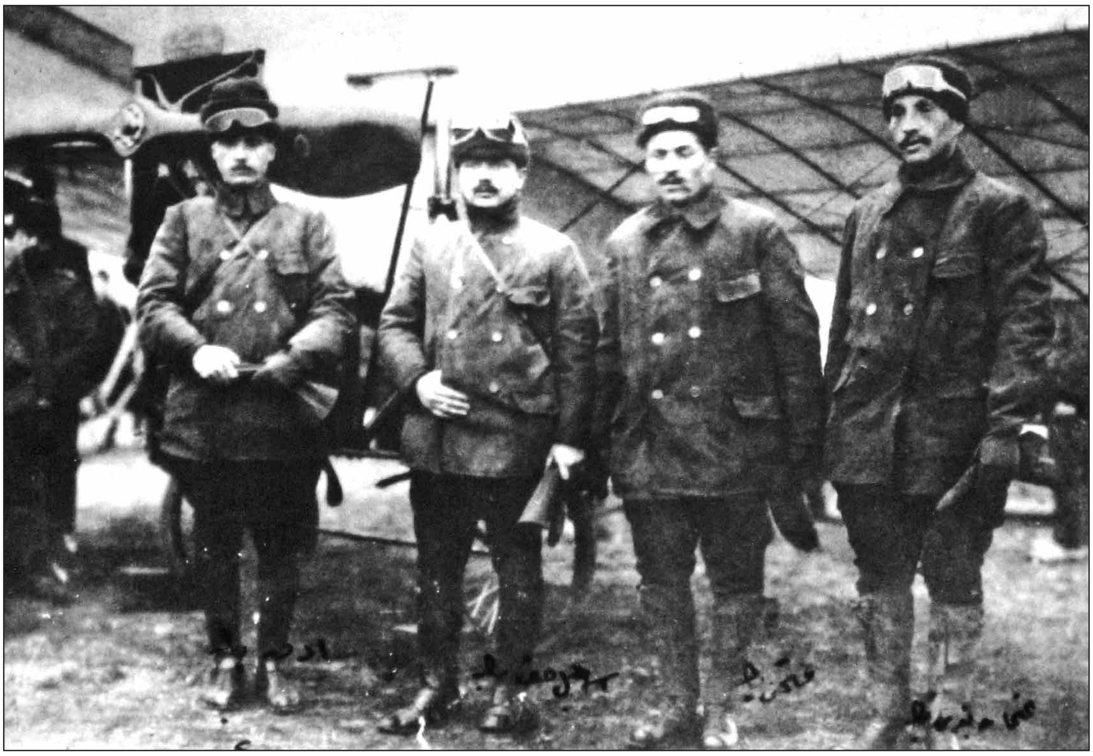
Meanwhile the Ottoman flying unit attached to the Eastern Army had more opportunity to prove its worth once the Bulgarian front had stabilized. Turkish records make no further mention of the German Harlan monoplanes which may have been damaged during a first chaotic retreat to the Çatalca Lines, or perhaps they merely proved unsuitable. Instead the records refer to numerous sorties by two newly arrived DFW Mars biplanes, plus two Deperdussins, two REPs and soon also by Blériots. The Turkish aircrew included those who had escaped from Thessaloniki plus some German mercenaries.

The German DFW Mars 100 hp Mercedes powered biplanes arrived early in 1913. These powerful aircraft, which could carry a significant bomb-load for their day, may have been "hired" rather than purchased by the Ottoman Army. Light aerial bombs were meanwhile acquired in Germany and Britain, mechanics and instructors being enlisted in France, Germany and Britain. In fact, Ottoman purchasing missions visited most of the leading aircraft manufacturers in France, Germany, Austria and Britain during this period.

De Goÿs de Mézeyrac in Ottoman uniform. On returning to France following the outbreak of the First World War, he was promoted to the rank of Chef de Bataillon and was instructed to develop a dedicated bomber force within the French Army's Service Aéronautique.

Adrianople fell on 28 March 1913 and the First Balkan War ended on 10 June. By then, however, the tiny Ottoman Turkish air unit had proved its worth above the fortified Çatalca lines. This they did in circumstances not so different from what would soon be seen on the Western Front. Several notably successful reconnaissance missions were flown by the aircrews of the Ottoman's Eastern Front, including some by Fesâ and Capt. Mustafa Kemal – later to earn fame at Gallipoli and, under his new name of Kemal Atatürk,

The Ottoman Army team responsible for organizing and carrying out the ambitious but disastrous flight from Istanbul to Cairo early in 1914. They are grouped around one of a Deperdussin TT monoplane, probably the one named *Osmanli* which got as far as Palestine before crashing into the sea, causing the death of one of its crew. (Turkish Air Force Museum photograph)



Two Ottoman crews attempted to follow in the wake of the more experienced French pilots Jules Védrines and Marc Bonnier by flying from Istanbul to Cairo in fourteen stages. Here they stand in front of the Blériot named *Ertuğrul*. (Turkish Air Force Museum photograph)

to become president of the post-war Turkish Republic. They also bombed forward Bulgarian positions. In fact, the two DFW Mars, two Deperdussins and two REPs attached to the Ottoman Eastern Army were highly effective in both reconnaissance and bombing missions over what became a static front. Towards the end of the conflict, two new Blériots were also transferred from training to operational duties. During these tense months, one of the Deperdussins was given the name *Osmanli*, apparently being the first Ottoman aircraft to be identified in such a way. Most surviving machines were later given names in a perhaps unique identification system, comparable to that used by the world's navies and which remained in use until 1915.

The brief but unexpected Second Balkan War started on 30 June 1913 when Bulgaria, feeling cheated of its share of the spoils, attacked its erstwhile allies. The battered Ottoman Empire saw a chance to regain some territory and for once joined battle as an ally of Greece and Serbia. The Blériots, Mars, REPs and even the Bristols were thrown into action once again, Eastern Thrace and the city of Adrianople being liberated on 21 July. Ottoman aircraft flew several reconnaissance missions during this short war which ended on 10 August 1913. Thereafter, they continued to patrol the tense new frontier until its demarcation was agreed at the end of September.

The First Balkan War had been a catastrophe for the Ottoman Empire but it had been fought against great odds and at a huge strategic disadvantage. The Ottoman Army had, nevertheless, acquitted itself well under these circumstances. Meanwhile, the air section came out of the Balkan Wars with considerable experience, confidence and greater strength than at the beginning. In fact, the tiny Ottoman air arm was briefly one of the most "combat experienced" in the world and, although the First Balkan War had a devastating impact upon the Ottoman Empire's self-confidence and its prestige abroad and in its non-Turkish provinces, the role of aircraft had been sufficiently effective for a conference on military aeronautics to be organized in Constantinople under the leadership of the French aviation writer Alfred Durand. This was followed by orders for additional French aircraft and an American Curtiss flying boat. Furthermore, the French government agreed to lend advisors to help establish a more effective Ottoman air arm.

Largely as a result of such effective use of aircraft during the later stages of the Balkan Wars, further French aircraft were ordered but only a few were delivered before the outbreak of the First World War in August 1914. They nevertheless included three Blériot XI Pingouin clipped-wing "ground-hopping" training machines which arrived in July 1914. Two operational types had also been selected for Army and Navy air units, the former wanting twenty Morane-

Work being carried out on the Deperdussin TT named *Osmanlı* which, flown by Nuri Bey and observer his Ismail Hakkı Bey, came down into the Mediterranean not far from Jaffa, on 11 March 1914. Nuri drowned, leaving Hakkı as the only survivor of this doomed enterprise.

Saulnier Type L parasol monoplanes. None could be delivered before the outbreak of the First World War, but the fact that the Ottomans eagerly purchased a handful of Pfalz AI licence-built versions of the Morane-Saulnier L in 1916 suggests that French maintenance equipment or tools may already have arrived.

The Ottoman Navy wanted fifteen Nieuport seaplanes, two of which reached Istanbul in June and July 1914. One of these Nieuport seaplanes was a standard 100 hp Gnôme powered Type VI naval reconnaissance monoplane. The other was the otherwise untraced Type VII in its “hydro” version. A great deal of publicity was given to this second machine, which had its manufacturer’s name written in Latin script on one side of the fuselage and in Turco-Arabic script on the other the suffix 7H. This might also indicate that the machines were a special modification built specifically for the Ottomans.

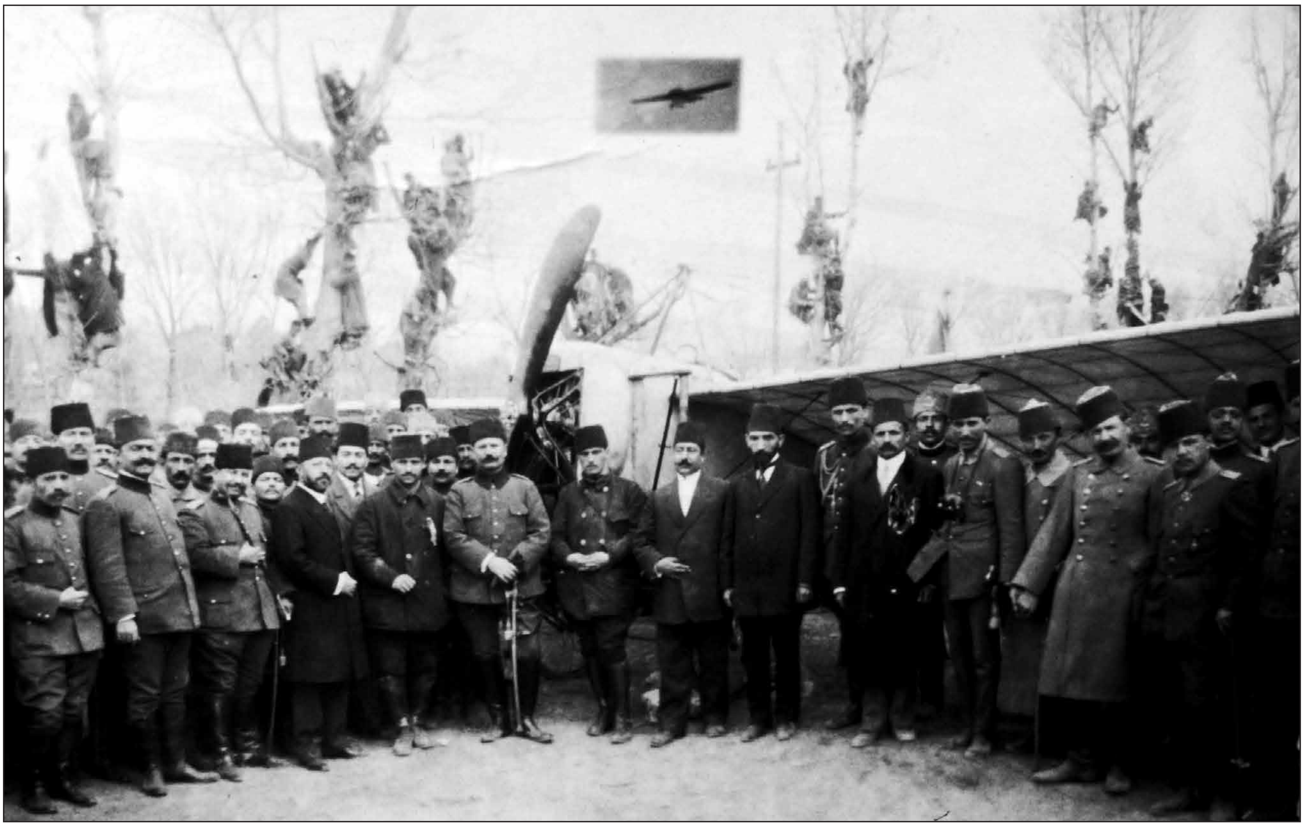
One Nieuport seaplane was named *Mahmut Şevkat Paşa* after the Minister of War who had done so much to set up the first Ottoman air unit, and both were still in service when the Ottoman Empire entered the First World War. The remainder of the Nieuport order were diverted to the French Navy on the outbreak of the greater conflict and were, ironically, flown against the Ottomans off Gallipoli and on the Suez Canal front. The Ottoman Naval air unit’s only other aircraft, an American Curtis F flying boat, had arrived slightly earlier in April. It was delivered by John Dale Cooper, an American who then seems to have provided technical advice during the establishment of a naval flying school on the coast next to San Stefano (Yeşilköy). The Ottoman government also tried to buy unspecified Caudrons and Farmans while the French government agreed to help establish a more effective Ottoman air arm. After three Turkish officers enjoyed brief periods in charge of the flying school, which was the Ottomans’ only real aerodrome, a French military advisor took over as chief instructor and base commander on 21 May 1914. His name was Capt. the Marquis De Goÿs de Mézeyrac.

Aircraft were also seen as a way to strengthen Ottoman prestige in the Sultan’s Arab provinces; a duty which fell to veterans of the Balkan Wars; both men and machines. The Ottoman aircrew who followed in the flight-paths of Jules Védrines and Marc Bonnier were experienced men, consisting of pilot Captain Fethi and observer Lieutenant Sadık flying a Blériot named *Ertuğrul,* while pilot Lieutenant Nuri and observer Lieutenant Ismail Hakkı flew a Deperdussin named *Osmanlı*. Like the Frenchmen who preceded them, the Turks’ route consisted of fourteen stages which varied in length from ninety to three hundred kilometres. Each stopping point was pre-supplied with fuel and spare parts.

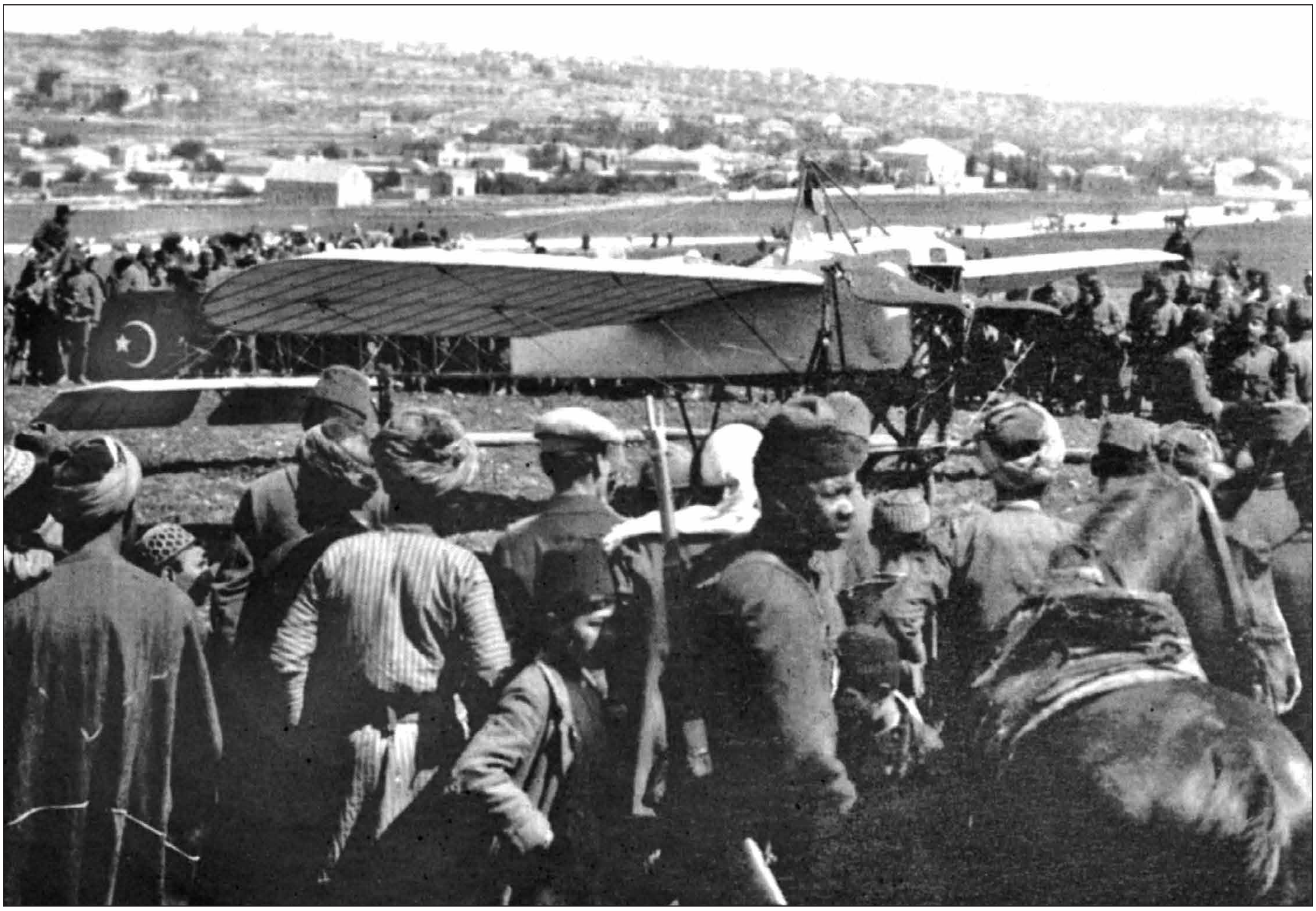
فتحی بك
الطیارین العثمانیین
شهیدتی الوطن
صادق بك

Pilot Fethi Bey and observer Sadık Bey who crewed the Blériot named *Ertuğrul*. (Turkish Air Force Museum photograph)

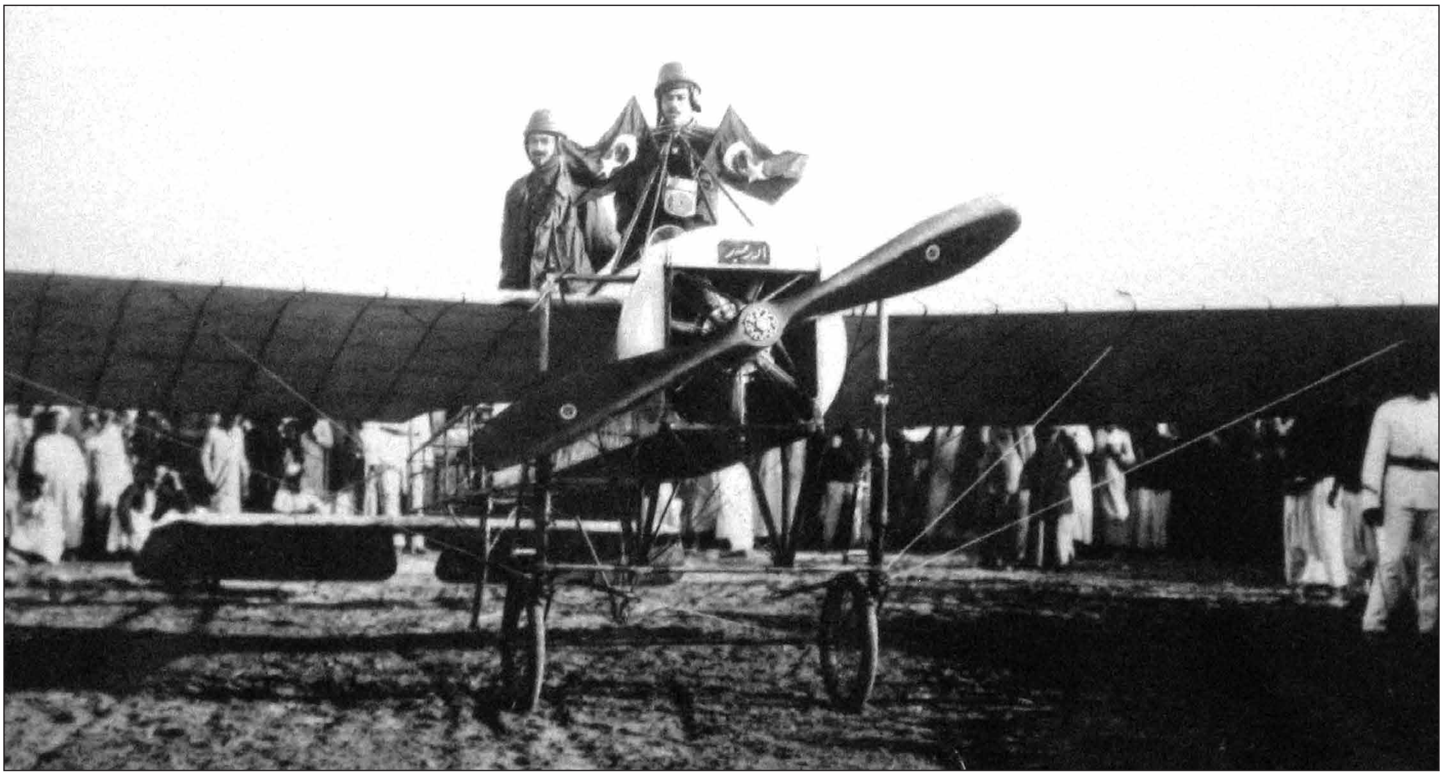
Such a long-distance and highly publicised flight was still very ambitious in 1914, especially for the Ottoman air arm with its limited technical support. Nevertheless, the Blériot and Deperdussin took off with great ceremony on 8 February 1914. They flew separately and, although adverse weather conditions and technical problems forced both machines to make unscheduled landings, they were greeted everywhere by enthusiastic crowds. Special stamps and postcards were printed and on 10 February 1914 Nuri made the first air-postal delivery in Turkish history. He also briefly seized the international altitude record of over 4,000 metres while crossing the Taurus Mountains. Then disaster struck between Damascus and



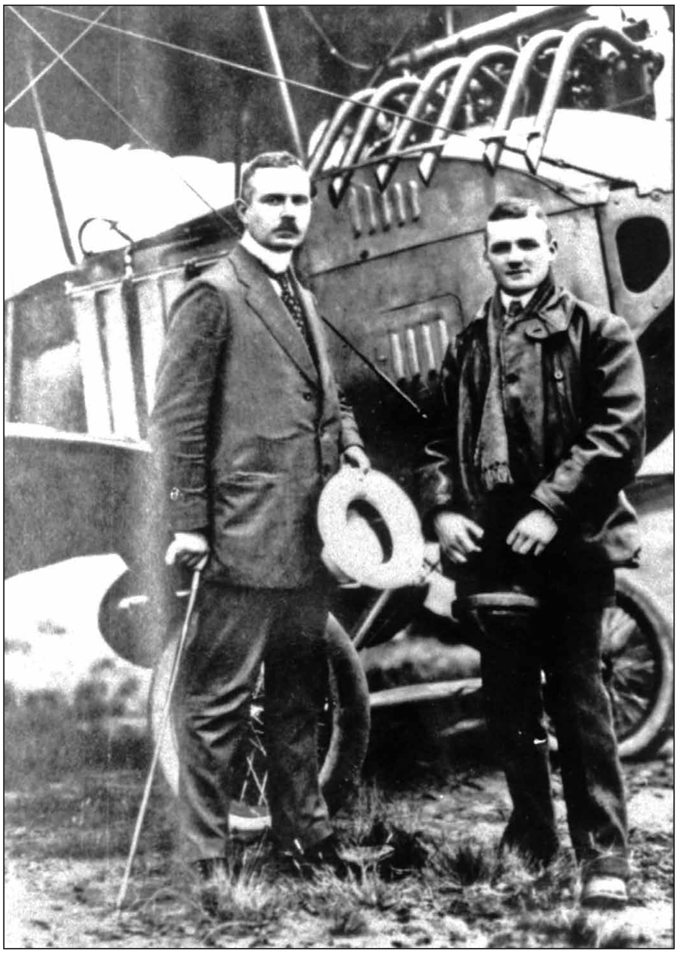
A postcard celebrating the arriving of the Blériot *Ertuğrul* in Damascus. It would crash near Lake Tiberius a few days later, killing both Fethi Bey and Sadık Bey. (Syrian Medical Museum photograph, Damascus)



Unwilling to accept a major blow to its prestige, especially in the restive Arab provinces, the Ottoman government shipped another Blériot to Lebanon, to complete the intended flight to Cairo. The machine was named *Edremit* and here it is said to have been photographed on its arrival in Egypt. However, the countryside and the costume of the local inhabitants clearly place the photograph in Lebanon or Palestine.



The Blériot *Edremit* piloted by Yüzbaşı (Captain) Salim, with Yüzbaşı Kemal as his observer, reached Cairo on 8 May 1914 where its arrival was greeted with great enthusiasm. (Turkish Air Force Museum photograph)



The record breaking German pilot Gustav Basser (right) in front of a Rumpler 4A/13. The photograph is said to have been taken shortly after he arrived in Constantinople on 22 July 1914, after flying from Germany. The Hapsburg Archduke Franz Ferdinand had been assassinated three weeks earlier and only days after Basser landed, Europe would be engulfed by the First World War.

Jerusalem, the Blériot *Ertuğrul* crashing near Lake Tiberius. Both Fethi and Sadık were killed. Nevertheless, the Deperdussin *Osmanli* took off from Jaffa on 11 March 1914 on the eleventh stage of its journey, but crashed into the sea a short while later. The pilot, Lt. Nuri, was drowned but his observer Capt. Ismail Hakkı survived. The three men who had died were buried next to the Mausoleum of Saladin in Damascus, which had recently been restored at Kaiser Wilhelm II of Germany's expense as part of a drive to strengthen German influence in the Ottoman Empire.

In Constantinople, this failure was regarded as an unacceptable blow to Ottoman prestige in the Middle East so a second Blériot XI-2 named *Edremit* was sent to Beirut by sea, and thence to Palestine. From there it was to complete the final stages of the flight to Egypt. Piloted by Captain Salim with Captain Kemal as his observer, the Blériot reached Cairo on 8 May 1914, where their arrival was greeted with great enthusiasm. In fact the most renowned Egyptian poet of the day, Ahmad Shawki, wrote a special eulogy which appeared in the newspaper *Al Ahram* only three days after the Blériot *Edremit* landed. After a number of demonstration flights in Egypt, this Blériot XI-2 was shipped back to Istanbul and was still in service when the Ottoman Empire entered the First World War as Germany's ally. The other damaged Blériot and the damaged Deperdussin were similarly retrieved and returned to San Stefano for repair, eventually re-entering service in 1915.

Two months after the epic though tragic Constantinople to Cairo flight, a Rumpler 4A/13 biplane was flown from Germany to Turkey by Rumpler pilot Gustav Basser, a well-known German pilot who had already broken a number of altitude, endurance and distance records in Rumpler machines. The Rumpler Type 4A/13 itself had slightly greater wingspan than the basic Type 4 and was powered by a 100 hp Mercedes engines (the Typ 4A/14 having a 150 hp Benz engine). In other respects it was a basic military aeroplane and was, in fact, the same machine in which Basser had recently broken the world endurance record. Accompanied by Engineer Doctor Elias, also of the Rumpler Company, Gustav

Basser took off from Johannisthal outside Berlin on 14 July 1914 and headed for Budapest. This they reached in approximately six hours.

The following day Basser and Elias flew from Budapest, across the Transylvanian Alps to the Bulgarian capital of Sofia; again taking about six hours. Each flight was about 700 kms long and was made without a break. The Rumpler crew remained in Sofia for six days, checking every aspect of their aeroplane, before taking off on 21 July, crossing the Balkan range and river Danube before landing at the Rumanian capital of Bucharest after a 300 km flight of around three and a half hours. The next day they set off again, this time heading for Constantinople (Istanbul), which their Rumpler reached after a flight of three hours and forty-nine minutes, covering 460 kms. Both flights had again been made without a break. Their total flying time from Johannisthal (Berlin) to Yesılköy (Istanbul) had been nineteen hours and fifty-four minutes.

However, within weeks most of Europe was plunged into the First World War. The Rumpler was purchased by the Ottoman Army, to be added to its tiny inventory of operational aircraft with the name *Fethi*. One of the first Ottoman pilots to test this machine was a civilian named Behçet who would later fly as a volunteer in the Ottoman 4th Squadron, initially in Cilicia and later in Syria and what is now Jordan in 1917-18.

5

THE FRENCH INVENT AERIAL POLICING (1909-1914)

Military aviation developed in a very different environment in French North Africa. Here in Algeria, Tunisia and Morocco the French presence had emerged in different ways in each country. In what became Algeria, French forces invaded what was then the nominally Ottoman but almost independent *eyalet* or province of Cezayir-i Gharb in 1830. This had for centuries been one of the main centres of Islamic maritime resistance to Christian domination of the Mediterranean – or, in the eyes of its European foes, of Moorish piracy. The Ottoman *eyalet* consisted of the fertile coastal regions but not of the inland uplands which remained the domain of various Berber tribes. Some of these sometimes acknowledged a distant Ottoman over-lordship, but Ottoman rule was certainly not imposed on the deeper desert where various Arabic and Berber speaking tribes had remained largely independent since medieval times. The French conquest of Algeria proved to be slow and bloody and, at the start of the 20th century, still did not include those deeper Saharan regions, which now form the bulk of the modern state of Algeria.

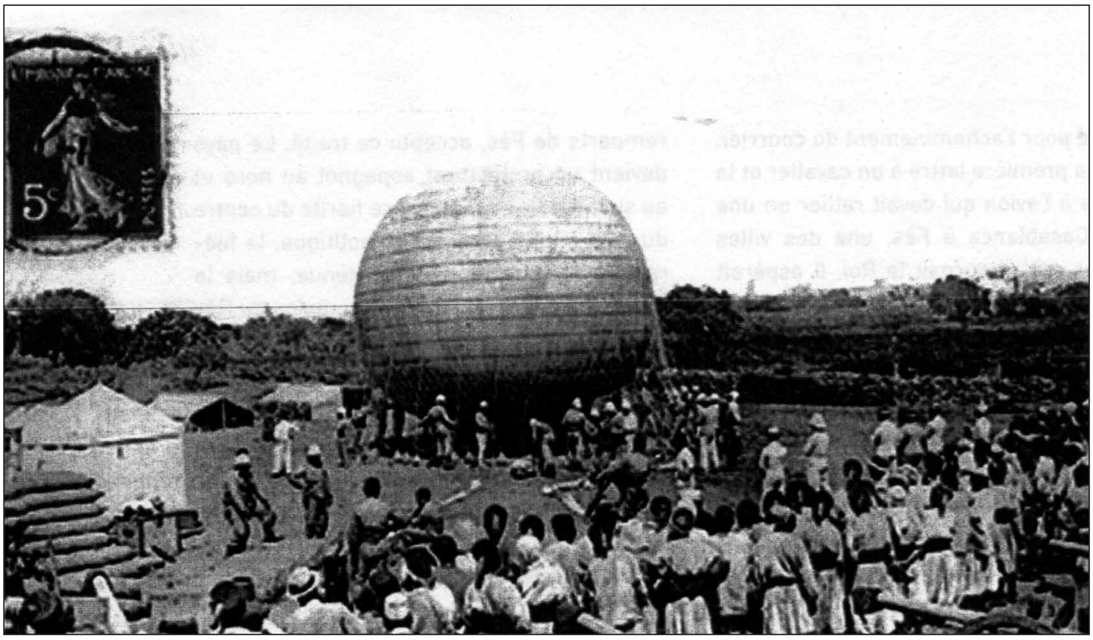
Meanwhile, Tunisia had been a *pashalik* under the Ottoman Empire, ruled by a dynasty of *Beys* known as the Husainids, However, as also happened in Egypt, an ambitious modernising programme in the 19th century had rendered the country bankrupt. In 1881 France imposed a protectorate upon Tunisia, despite strong Italian objections. Following the British occupation of Egypt in 1882, Egypt remained nominally a part of the Ottoman Empire. In contrast, Tunisia under the French protectorate was nominally independent.

Morocco was still a fully independent monarchy at the start of the 20th century, though Spain held the enclaves of Ceuta and Melila on its Mediterranean northern coast, plus some tiny off-shore islets. On 27 June 1900, Spain and France agreed that Morocco should be divided into Spanish and French "spheres of influences", but they did not specify the borders of these spheres of influence. Meanwhile Tangier on the northern tip of the kingdom was to some extent already dominated by European foreigners, while also being under increasing French influence.

Kaiser Wilhelm II of Germany's visit to Tangier in March 1905, which triggered the First Moroccan Crisis of 1905-1906.

It was against this background that the French were the first to develop the concept of the aerial policing of imperial or colonial territories. This idea would be brought to brutal perfection by the British in Iraq and elsewhere between the First and Second World Wars. France was, of course, the centre of aviation in those early years. Its scientists, engineers and pioneer aviators were supported by an enthusiastic public, so it is hardly surprising that a debate about the possible usefulness of aviation in France's overseas colonies started even before the end of the 19th century.

At one point the international focus on north-west Africa, which followed the First Moroccan Crisis of 1906, seemed to threaten a war between established imperial powers and the rising imperial power of Germany. Conflict was avoided but the crisis strengthened the new Entente Cordiale or unwritten alliance between France and Britain. Two years later, in 1908, the French put serious effort into establishing some form of "air police" whose primary purpose would be to combat smuggling within France itself. However, those French politicians and others who were known as the "colonial party" already foresaw its potential overseas. On 3 December 1909, for example, Paul Painlevé, a parliamentarian with a special interest in aviation, suggested to the French Senate's aviation committee that a "flying transport system" to carry light but urgent materials



A French commemorative postcard showing soldiers of the French Army preparing an observation balloon at Casablanca (Dar al-Baida) in Morocco in 1907.

should be established between southern Algeria and Timbuktu on the other side of the Sahara Desert. This was a remarkably forward thinking concept at a time when the Service Aéronautique was still being set up in the French Army. Just a year later the French government decided to send military aircraft to southern Algeria.

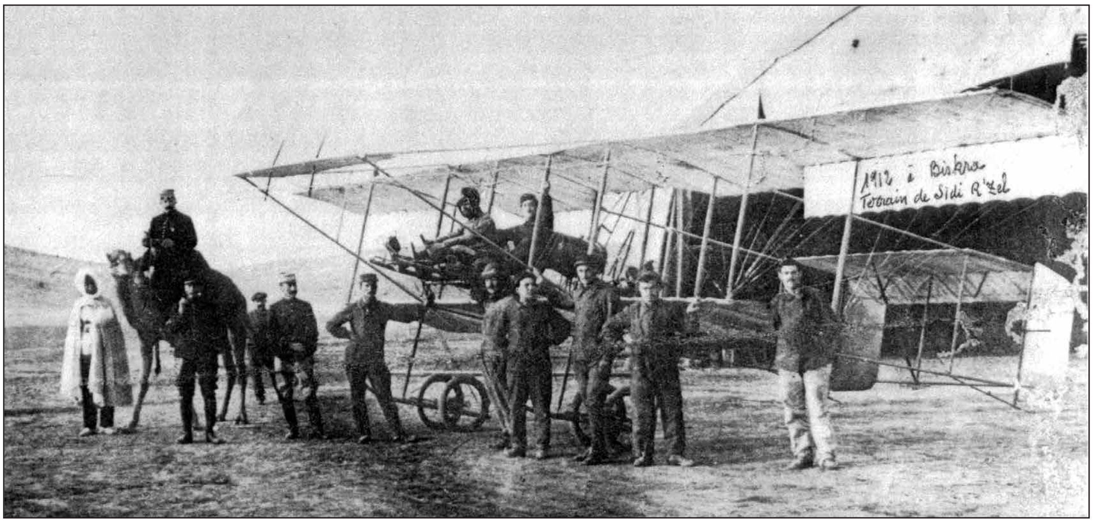
Eventually the success of several long-distance flights in North Africa and the Middle East encouraged the French government to offer a large prize, then worth £10,000 sterling, for an aeroplane capable of flying 500 kilometres non-stop while carrying 1,000 kilograms of "war material". This was intended to encourage the design and construction of what was described as a "useful type of machine".

The potential of using aeroplanes to dominate colonial territories in the Arab world had already been recognised, but it is interesting to note that one the first and most popular French novels concerning an "imperial" use of air power was set in the Far East, not in North Africa. This was *Les Conquérants de l'Air* by Georges de Lys, the pseudonym of a French Army officer named Georges Fontaine de Bonnerive. It was published in 1910 and was illustrated by the renowned artist Albert Robida. On the other side of the English Channel, George Herbert Ely and Charles James L'Estrange, under the pseudonym of Herbert Strang, wrote an adventure book for boys entitled *The Air Patrol*, published in 1913 and illustrated by the Italian-American artist Cyrus Cuneo, father of the even more famous war artist Terence Cuneo. However, they would set their story in that most traditional of British imperial adventure playgrounds, the North-West Frontier of India.

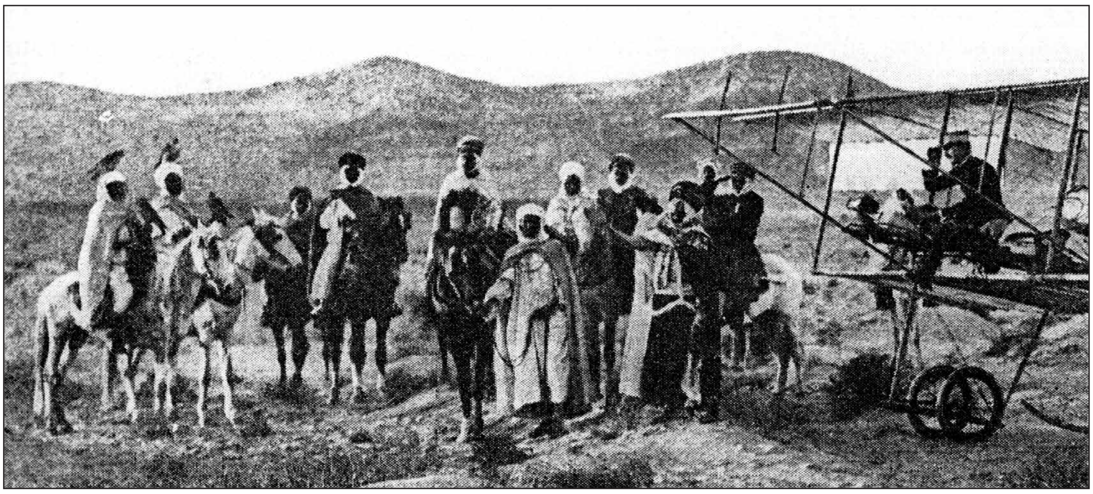
The year 1911 would not only witness dramatic events in North Africa but also see further refinement of the new concept of aerial policing, notably by General Frey who had earlier commanded a French expeditionary force during the international campaign to crush the so-called Boxer Rebellion in China. His study, published in 1911, was one of the first serious military analyses of the role of aviation in colonial policy, portraying it not only as a military instrument but as an economic and psychological one as well. Frey also regarded the "heavier than air" aeroplane as being most suitable for use in the colonies, as it was cheaper and less cumbersome than the "lighter than air" airship. In this he was supported by a leading French politician named Gabriel Hanotaux, a former Minister of Foreign Affairs who regarded the aeroplane's ability to respond quickly as particularly useful in Africa.

On the ground, however, things progressed more slowly, at least until the Italian invasion of Libya added a sense of urgency to affairs in French North Africa. The languid ascent of a spherical balloon in Casablanca in 1907, operated by a battalion of French *aérostiers* under Lieutenant Bienvenüe, seemed to epitomise France's relaxed attitude. This was despite an upsurge of patriotic feeling in Morocco in the wake of the 1906 Algeciras Conference which had authorised

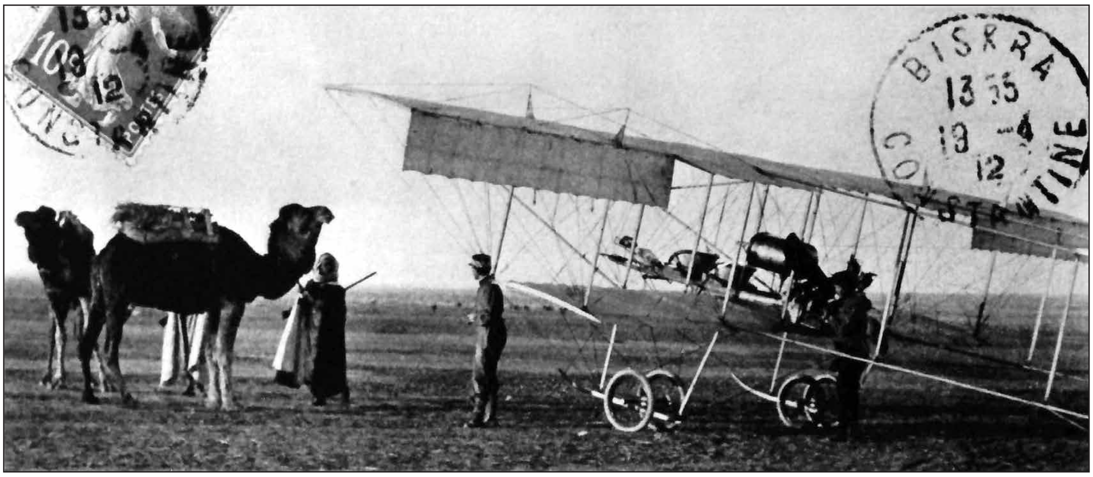
French military engineers with a gas storage or "nurse" balloon in Morocco, reportedly during the French Army's advance from Casablanca to Fez in 1907 or 1908.



In 1910, the Algerian oasis of Biskra had been selected as the nucleus from which French military aviation would gradually extend its activities across the vast Saharan desert regions of the French colonial empire. During 1912 a number of tentative exploratory flights were made. They included flights by Lt. Jolain, seen here with Capt. Charles Courtade in a Henri Farman Type Maneouvre 1911. On the left, on camelback, is Lt. Cheutin who became a leading pioneer of desert aviation. Note that the writing on the Farman's aileron is on the photograph, not on the aeroplane itself. (Musée de l'Air photograph)



Lt. Maxime de Lafargue in a 50 hp Henri Farman Type 1911 with some of the Qa'id (indigenous leader) of Ziban's falconers near Biska in February 1911. In reality Lafargue is unlikely to have flown wearing his gold braided officer's cap. (ex-Manchon)

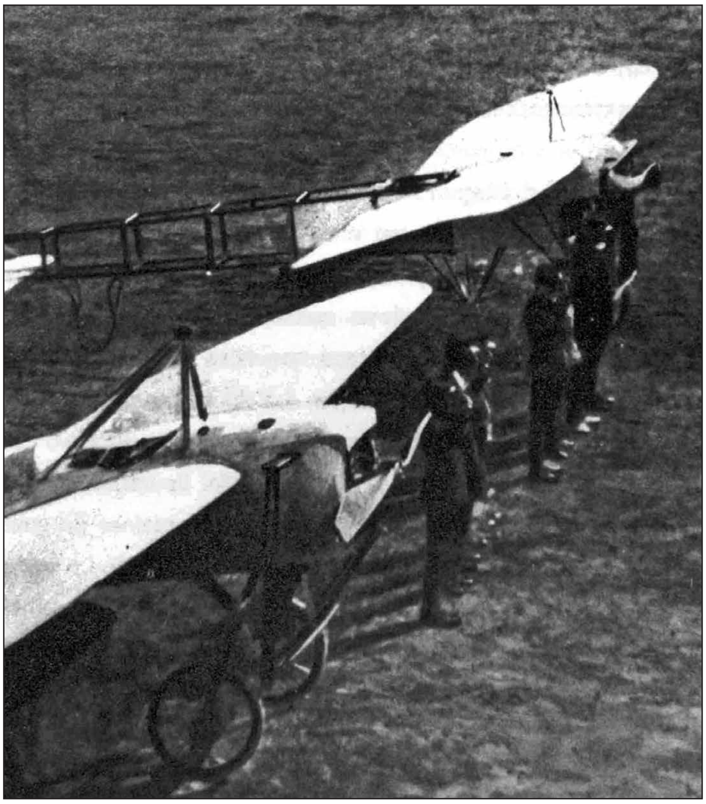


Lt. Lafargue during a flight from Biskra to Tuqurt (Touggourt) in a Farman Type Manoeuvre 1911. This was part of the French effort to establish a network of aerial communications linking Biskra, Tuqurt, Bishar (then known as Colomb-Bechar) and Bani Abbas. The flight took place between 22 and 24 March 1912, while this postcard is dated 19 April 1912.

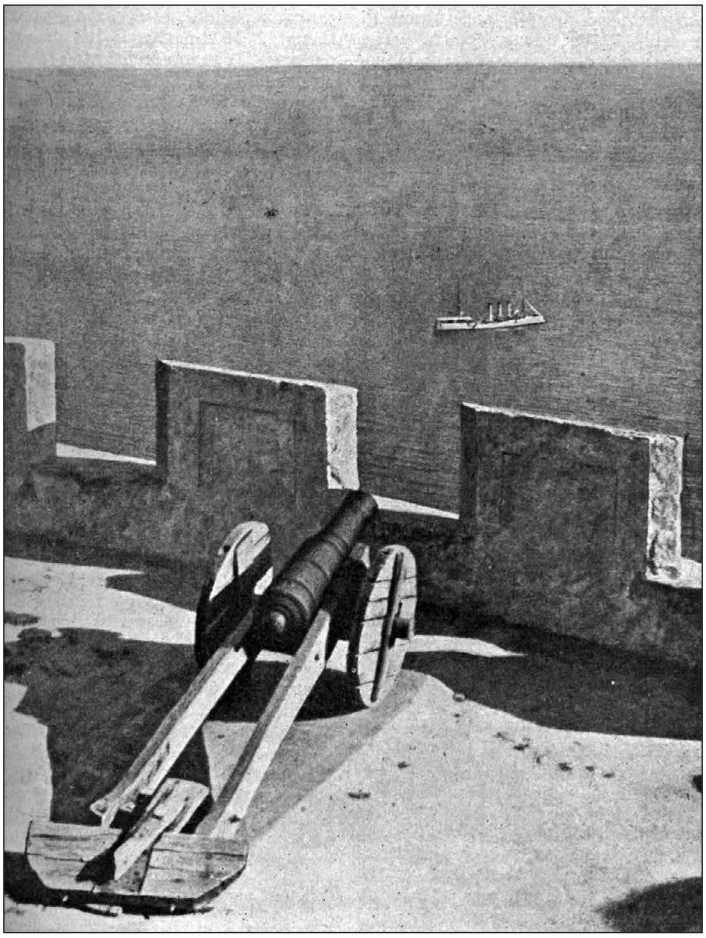
European intervention in Moroccan domestic affairs. In fact, the balloon unit undertook observation for General Drude's 2,500 troops who were facing an estimated 16,000 enraged Moroccans. After a few ascents, which were hampered by strong winds, this first use of military aviation in North Africa was deemed a failure. The balloon company left in March 1908 and did not return.

The following year an Aero Club was established in Algeria but it again focussed on ballooning. Then in March 1909 a section of the French National Air League in the Algerian city of Oran, supported by Hubert Lyautey the military governor of the region, made a study of the possibility of using aeroplanes in the Sahara Desert. The text was sent to the authorities in Algeria and thence to the War Department in Paris. Six months later a French pilot named René Métrot made the first aeroplane flight in Algeria, followed in November by another in his Voisin biplane over the main city of Algiers. On that occasion another French pilot named Saurin flew less successfully in a Blériot. On 14 December René Métrot made a daring 45 km cross-country flight from Algiers to Blida, the town where he himself had been born.

These adventurous flights caught the French mood of the time, especially that of René Quinton, President of the French National Air League. On 18 July, 1910, he urged the Minister of War to establish an aerial postal service in Algeria to support French troops in otherwise isolated outposts. He also found an ally in General Bailloud, Commander of the 19th Army Corps in Algeria who was amongst the first to take seriously the idea of aeroplanes supporting military operations in the desert. Although Gen. Bailloud was not in favour of a civilian air postal service, on 3 October he stated his desire for an air arm which could take an active part not only in the exploration but also the pacification of the deep Sahara. At the same time, he and his officers, being aware of the extremely difficult climatic conditions of such regions, tended to



Before the First World War the French military presence in Morocco was more precarious than it was in Algeria. A number of military "columns" or expeditions were therefore launched in 1912, supported by a very limited air element. When General Brulard's column arrived at Casablanca, the event was marked by a large military parade which included the two Blériots seen here. In March they were the first strictly military aircraft to fly in France's Moroccan Protectorate. (Musée de l'Air photograph)



The German cruiser *Berlin,* photographed from the citadel of Agadir during the Second Moroccan Crisis. This crisis brought Germany, France and the United Kingdom to the brink of war three years before the First World War actually broke out.

be more cautious than some overenthusiastic civilians. Dreams of flying to Timbuktu would have to wait.

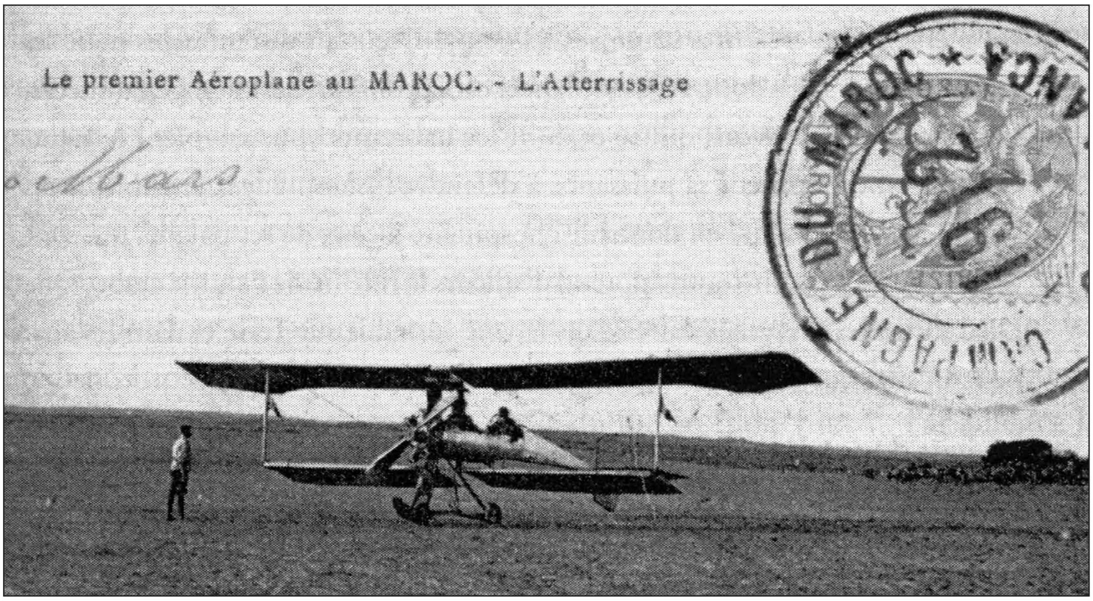
Nevertheless, two months later the French government agreed to allocate a substantial sum of money to establish an experimental aeronautical centre with six aeroplanes to be based south of Algeria's coastal mountains. General Pierre-Auguste Roques, the Inspector of Military Aviation, now had to decide upon a location, but before he did so Lieutenant Lafargue of the 3rd Spahis cavalry regiment was selected to train as a pilot. The oasis and town of Biskra was now chosen as a headquarters, confirming General Bailloud's initial selection of this site because it was at the end of a railway to the coast, and also lay south of the Atlas and Aures Mountains. It was also located on the edge of the real desert, close to a huge sea of sand called the Great Eastern Erg. Meanwhile, Lt. Lafargue earned his pilot's wings, having studied at the Mourmelon aerodrome where he befriended the aeroplane designer and manufacturer Henri Farman while learning to fly in one of his machines.

The French plan for Algeria was to gradually and cautiously create an aerial communications network based upon Biskra, Tuqurt, Bishar (Colomb-Bechar) and Bani Abbas. A second network would then be extended southwards to Salah and Tamassinine. Only when these were completed would routes be pushed deeper into the desert, eventually establishing a trans-Saharan network of what might now be called air corridors to Agadez, Timbuktu, Chad and French Equatorial Africa. It was an astonishingly ambitious plan for the time, being drawn up several years before the outbreak of the First World War, though still rooted in an imperial and colonial outlook. It was similarly far in advance of available technological capabilities.

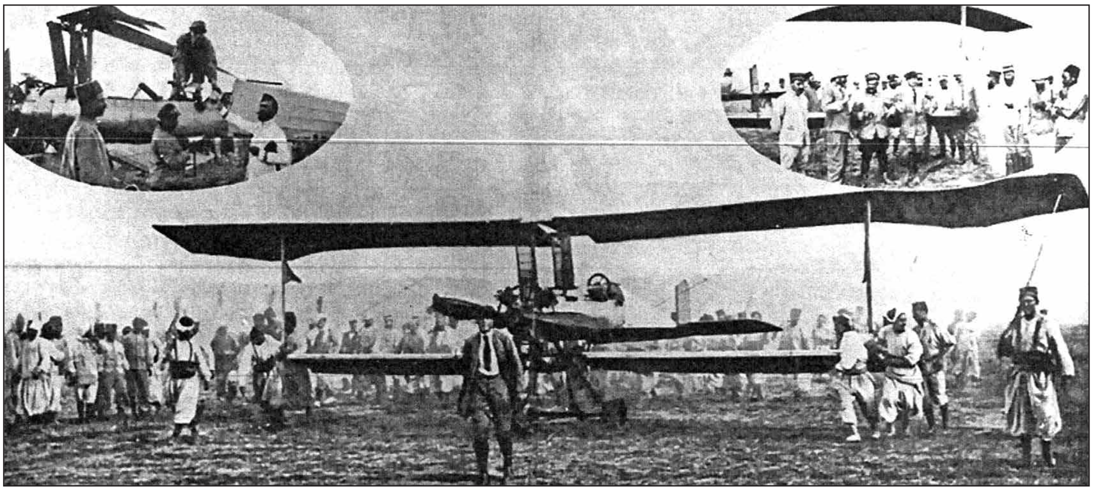
At this point the Second Moroccan (or Agadir) Crisis erupted with a rebellion against Sultan Abd al-Hafiz who, by April, found himself besieged in his own palace in Fez. The Sultan of Morocco now requested European help and in late April the French sent troops, supposedly to protect European lives. The Spanish also occupied part of northern Morocco. Like the First Moroccan Crisis of 1906, the Second was eventually solved without international conflict, though the solution largely ignored the wishes of the Moroccan people.

Furthermore, Germany once again felt excluded from the "Imperial Club". Another consequence of the Agadir Crisis was German fear that the French National Air League was going to be used as a front for the expansion of French military influence in Morocco. To calm such concerns General Roques, the French Inspector of Military Aviation, decided that a supposedly civilian pilot, Henri Brégi, would fly the Breguet Type 3 aeroplane that was to be demonstrated in Morocco. This would also limit damage to French military prestige if anything went wrong during his demonstration flights.

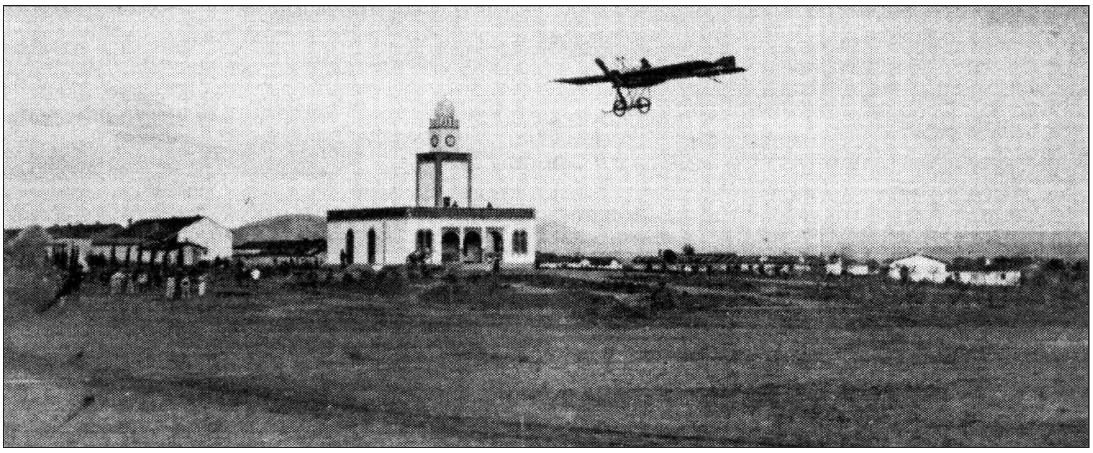
Brégi had already made the first powered flights in Argentina and elsewhere in South America. He now flew from the beach at Casablanca to Fez via stops at Rabat and Meknes in September 1911. The Breguet Type 3 escaped serious damage when some local people placed obstacles on one of the landing grounds, and when it was shot at by tribesmen during one stage of Brégi's flight. In December Henri Brégi and his passenger, the journalist René Lebaut of *Le Petit Journal*, successfully carried a cargo of airmail. Lebaut also did his job well, publicizing these flights not only amongst the Muslim peoples



A postcard showing the first powered flight in Morocco. The machine is a Breguet Type 3 flown by Henri Brégi and the journalist Réne Lebaut in August 1911. Such was the fear that any failure would undermine French military prestige that General Roques, the French Inspector of Military Aviation, insisted that the first Moroccan flight be carried out by a nominally civilian pilot.



Fortunately for France, the flight by Henri Brégi in his Breguet Type 3 proved successful. It impressed the local populace and was celebrated in a series of photographic postcards.



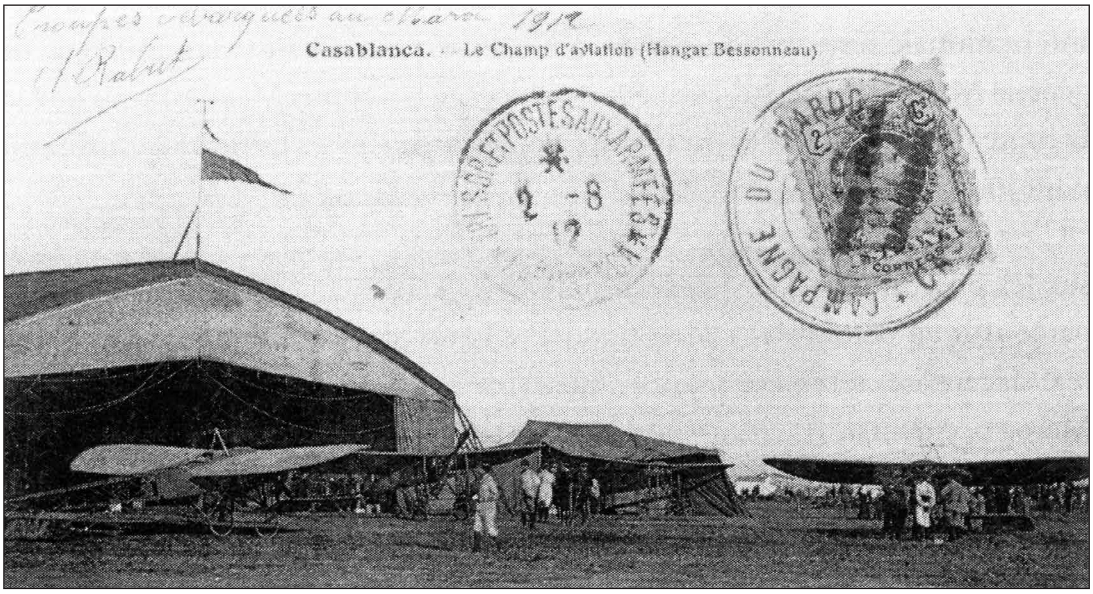
Another postcard showing the Gnôme powered Deperdussin of a civilian volunteer pilot named Julien Serviès, landing at Wajda (Oudja) late in 1911 after one of first missions flown during the French military operations in north-eastern Morocco.

of the French Empire but also amongst Muslims further afield. Here he described the aeroplane as a bringer of peace and, of course, as a symbol of French power. On the other hand, the supposedly civilian character of the flights was recognized as a facade. One flight by the Breguet, which was intended to impress the Moroccan Sultan and perhaps encourage him to purchase the aeroplane, also backfired when the machine suffered problems with its engine's magneto.

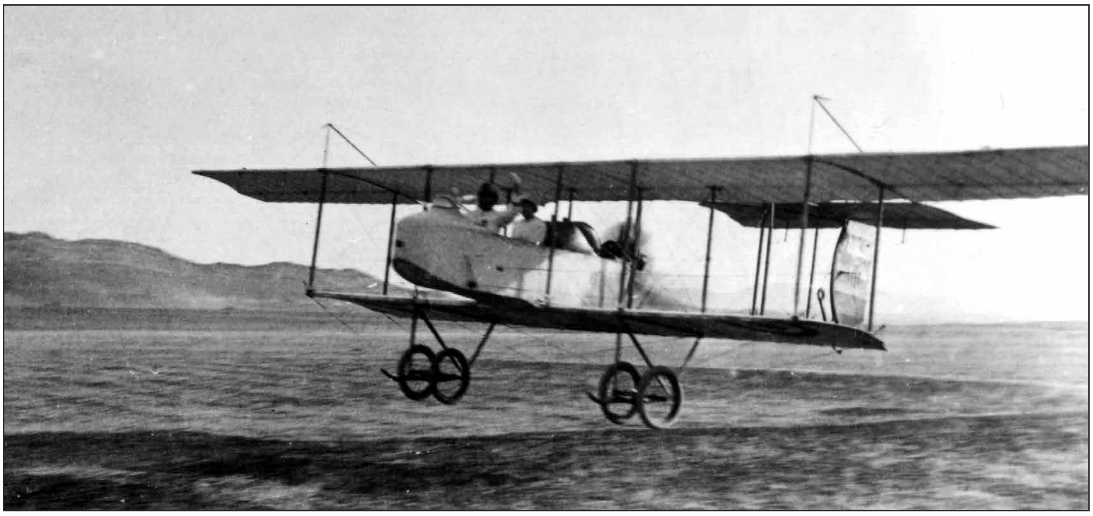
Meanwhile in north-eastern Morocco, a French military column entered the country from Algeria and was supported by another civilian pilot named Julien Serviès. He took off from Saint-Denis-du-Sig in western Algeria to look for "dissidents" around the Moroccan frontier town of Wajda on 14 October 1911, flying his own Gnôme rotary engined Deperdussin. Serviès' report proved very useful for the column commanded by Colonel Henrys. However, Julien Serviès was a civilian and his flight was a one-off, impromptu affair, thus the Italians in Libya are generally credited with making the first real aerial reconnaissance in a powered aeroplane.

The early years of flight almost always involved national prestige. Following the Italian invasion of Libya, this now became a very important matter for the French in their new air base at Biskra on the northern edge of the Sahara Desert. The shipment of aeroplanes to Algeria was pushed ahead as quickly as possible and Alexandre Millerand, the current French Minister of War, declared that the French people could not accept taking second place to Italians. A parliamentary bill to reorganise French military aviation, proposed by Senator Adolphe Girod on the radical left of French politics, was duly passed.

The French General Staff now decided that, with the occupation of Fez and Meknes and the opening of roads between Morocco's main cities, it might be time to base military aircraft in that country as well. A provisional study of the idea was made by Lt. Pierre Clavenad who, on 6 December, sent a favourable report to Paris – at least where western Morocco was concerned. Clavenad suggested


Groupes aviateurs au Maroc 1912
Rabat
Casablanca. — Le Champ d'aviation (Hangar Bessonneau)
2 -8 12

The postcards which provide an invaluable record of early French aviation in North Africa, include this photograph of four Blériot XI Militaires in front of a Bessonneau hanger at Casablanca in the spring of 1912.



Lt. Cheutin landing at Biskra in a Henri Farman HF.20, perhaps during preparations for the Biskra to Tunis flight by four Farmans in February and March 1913. (Pierre Jarrige collection)

the establishment of two aerodromes; the main one being at Casablanca which had substantial port facilities. A secondary aerodrome could be established at Fez, the capital of Morocco and powerbase of France's ally, Sultan Abd al-Hafiz. Fez would also be an ideal location from which the French could exert political and psychological pressure.

The year 1912 would therefore see the French make considerably more use of aircraft in North Africa. As yet there was no flying in neighbouring Tunisia though 1912 would see the establishment of French air units in the new "protectorate" of Morocco. Here Morocco's distinctive geographical circumstances meant that these units were divided into western and eastern sections, located on either side of the huge Atlas Mountain range, with a third zone of operations in the south appearing later.

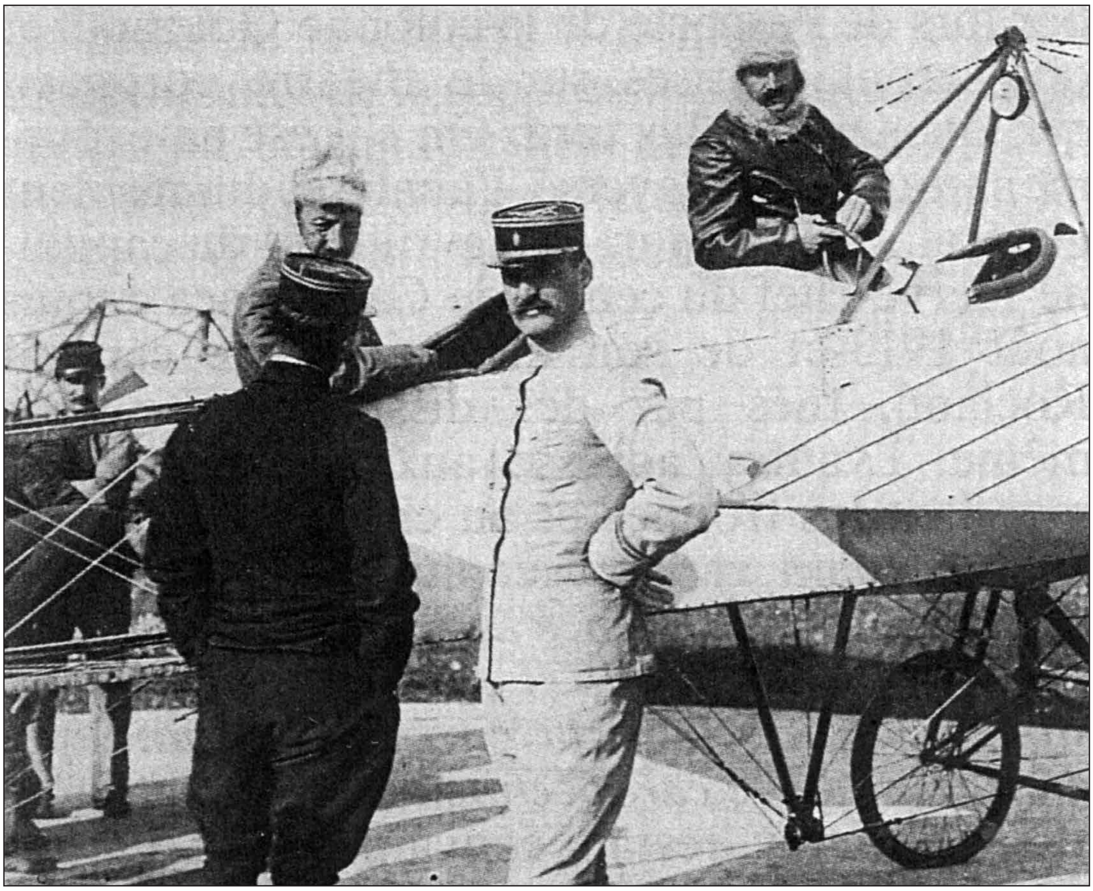
Lieutenant Lafargue had already returned to Algeria in late summer 1911 to join his colleagues outside Biskra. This unit's role was still largely experimental with Lafargue's cautious flights assessing the problems of desert flying in different weather conditions. Workshops and shelters were erected for aeroplanes and were themselves tested. Meanwhile Biskra remained dependent upon Chalais-Meudon in France for personnel, and on the main depot at Versailles for aircraft and equipment. In October another pilot, Lieutenant Reimbert, arrived from France while Lieutenant Lafargue took over command in November. By February 1912 an area of ground, 600 by 100 metres, had been cleared for aeroplanes to take off and land, though other facilities for men and machines remained very primitive. The early form of hangers proved especially vulnerable to sandstorms and extreme fluctuations in climatic temperature, one being destroyed by a storm on 29 January.

The first aeroplanes at Biskra consisted of a three-seater Henri Farman Type 10, built for the 1911 Concours Militaire with a 50 hp Gnôme engine. It had arrived by railway on 9 February and eventually four of this type were ready to fly at Biskra. The unit was now commanded by Lts. Reimbert and Lafargue with a staff of specialist engineers provided by the 19th Army Corps. The first aeroplane to become operational was serial number 31; its first operational flight being between Biskra and Sidi Ghezel on 17 February 1912. This was, strictly speaking, the first flight by a French military aeroplane in one of France's colonies. Lafargue and Reimbert followed up with a series of further flights around the oasis of Biskra but on one occasion Reimbert overturned his Farman, fortunately without injury to himself or Corporal Croscomme, his observer.

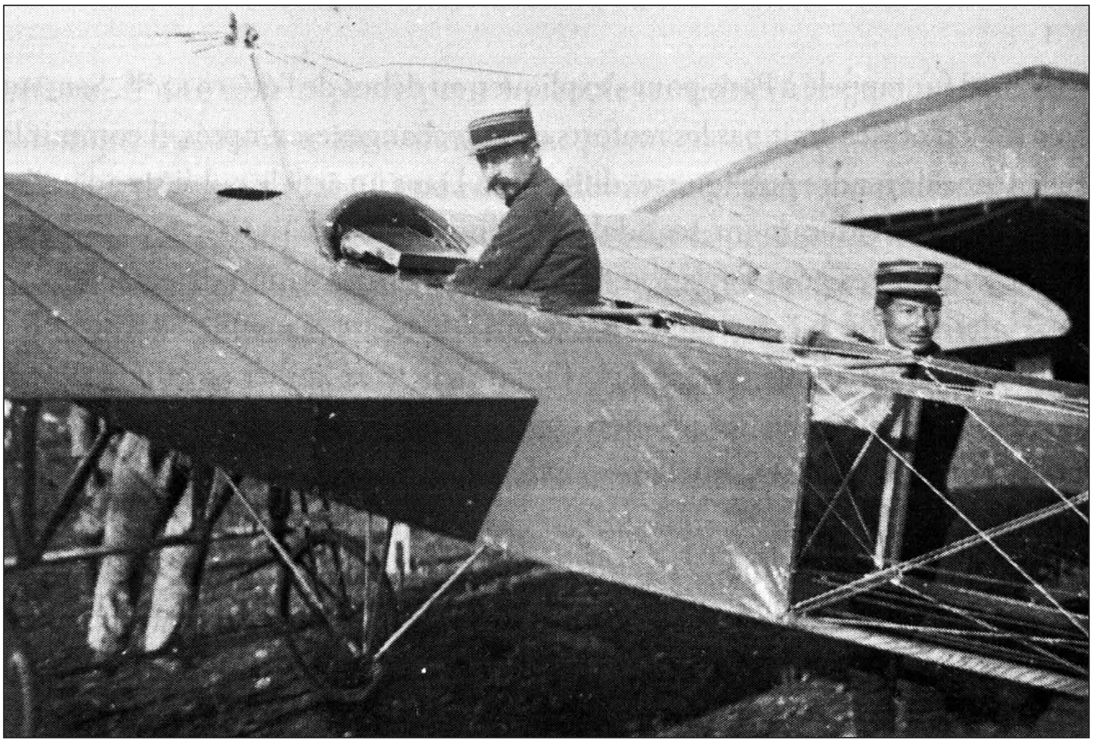
Only after several such test flights did French aircraft venture over the desert south of Biskra oasis. Flying at altitudes between 100 and 800 metres, they found that the desert air was particularly clear, so much so that some pilots failed to realise how high they were flying at a time when altimeters were unreliable and affected by weather. On the other hand, winds proved to be very variable and unpredictable while the aeroplanes' undercarriages proved too fragile for a desert aerodrome. Dust also often penetrated engines, which as yet lacked desert filters.

Lieutenant Lafargue noted that the psychological impact of these flights was particularly significant amongst peoples south of the mountains who had hardly been affected by previous rulers from the Mediterranean coast. He also informed his superiors that fuel dumps had been established 100 kms from Biskra, along with a subsidiary aerodrome with two hangers 250 kms away at Tuqurt. Finally, emergency landing places had been identified every 25 kms between Biskra and Tuqurt.

All was therefore ready for an ambitious longer distance desert flight and on 22 March 1912 Lts. Reimbert and Lafargue, each with an observer and a mechanic, took off in two Farman aeroplanes. Flying



Here the French Army aviators Van den Vaero (seen from the back) and La Morlais (in his Blériot XI) were probably photographed in 1913. (Musée de l'Air photograph)



The pipe smoking Lt. Van den Vaero would take command of the Blériot squadron in Morocco in 1913. He is shown here in the cockpit of a Blériot XI called "Le Jaune" (The Yellow) at Casablanca in spring 1912. To the right is Lt. Do Huu Vi, a pilot from the French colony of Vietnam. (Musée de l'Air photograph)

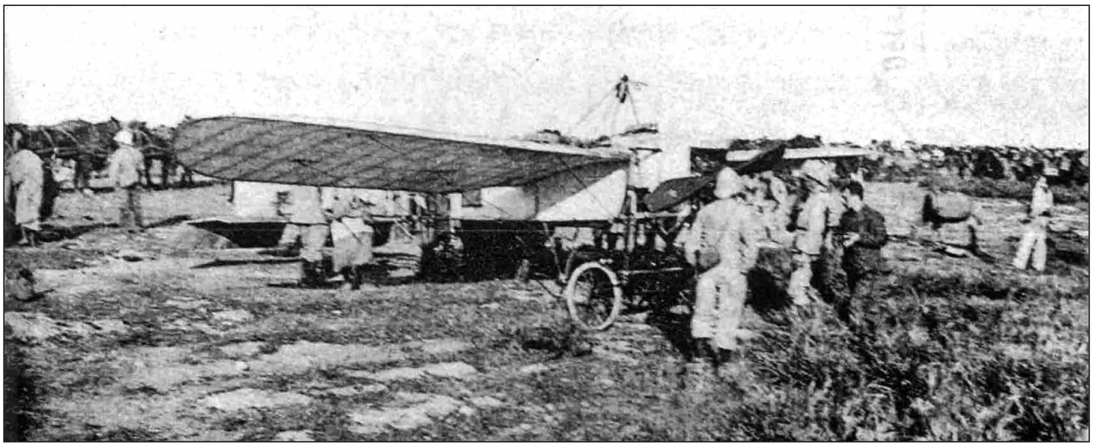
at around 1,000 metres they were hampered by strong headwinds and had to land at Jama'a, 60 kms short of their goal. Next day a violent sandstorm again forced them to land, this time spending the night in the salt flats of the Shott Tamirna. Finally, on 24 March the two aeroplanes arrived at Tuqurt, to an enthusiastic reception by the French garrison. It was an epic flight, but the fragility of the aeroplanes had been all too obvious.

Despite subsequent flights between Biskra and Tuqurt, any more ambitious penetration of the deep desert would have to await more advanced equipment. This arrived during the winter of 1912-13 in the form of sturdier Henri Farman HF.20 machines with 80 hp engines and superior instrumentation. Eventually there were up to eight aeroplanes of this type at Biskra, though the records remain unclear, and they were housed in two metal hangers. During this period, Lt. Lafargue also extend the range of his flights to Warqlah.

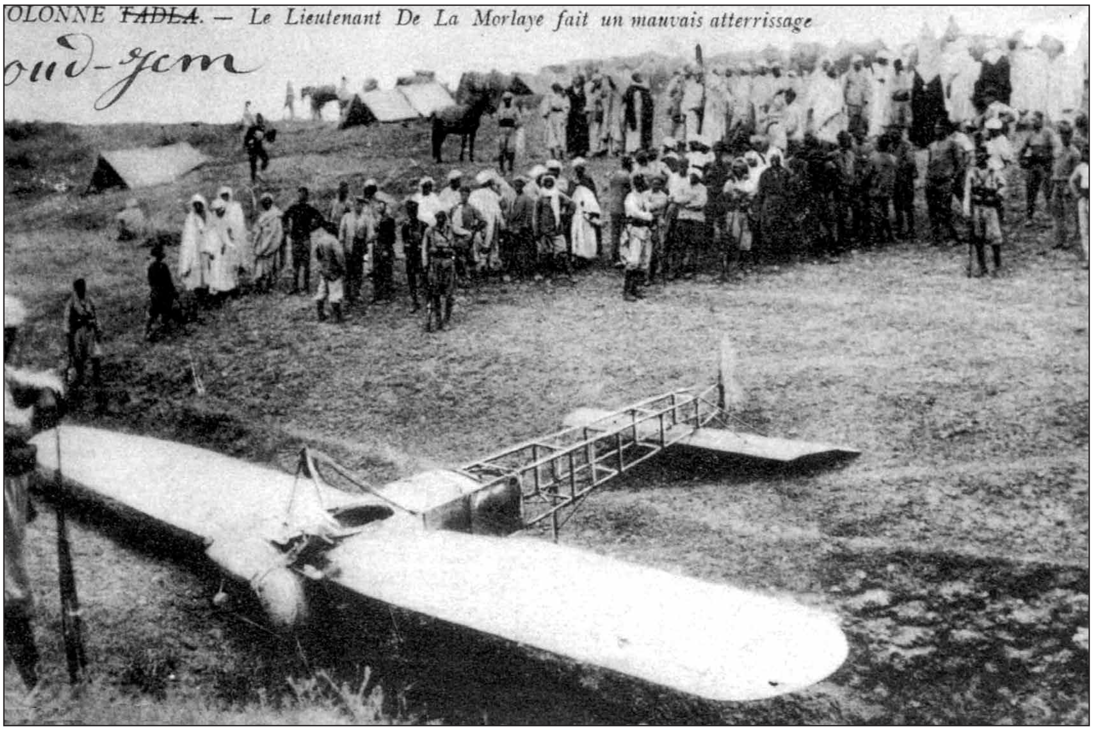
Tunisia, having been somewhat ignored by the pioneers of French aviation, became more important following the Italian invasion of neighbouring Libya. In May 1912 General Pistor, the senior French commander in Tunisia, called for the establishment of an air unit in his region, though nothing would happen for several months.

In contrast the year 1912 proved be a busy one for French aviation in Morocco. The difficulties of communication between the eastern and western parts of the country had resulted in the establishment of two separate aviation centres. Nevertheless, both remained dependent for supplies, major technical support and overall supervision upon the French military aviation headquarters at Chalais-Meudon in northern France . At the same time the role of French aviation in Morocco remained more political than military, being concerned to counter the rising technological and military prestige of the Italians.

In fact, fear of failure within sight of local inhabitants so inhibited those in command that the eager French aviators in Casablanca and Fez were not allowed to take chances. Nevertheless, flights over Casablanca by Lt. Van den Vaero did start on 27 March 1912, closely flowed by Lt. Do Huu Vi. The latter was the son of



The Blériot XI of Lt. La Morlais which had landed next to Gen. Mangin's column; a French military force which was pursuing the Berber resistance leader Muha Uhamu al-Ziyani in the Tadla area during spring 1913.



OLONNE ~~TADLA~~. — Le Lieutenant De La Morlaye fait un mauvais atterrissage
oud-Jem

A postcard showing the Blériot XI of Lt. La Morlais and civilian volunteer Julien Serviès, following a bad landing at Wadi Jim on 5 May 1913. They had been flying in support of another French military column in Morocco.

a wealthy nobleman in Saigon (now Ho Chi Minh City) in Vietnam who had travelled to Europe to learn to fly. After gaining his military wings with brevet number 649 of the Aero Club de France, Do Huu Vi joined the French squadron in western Morocco at the start of 1912. He would remain there until 1913.

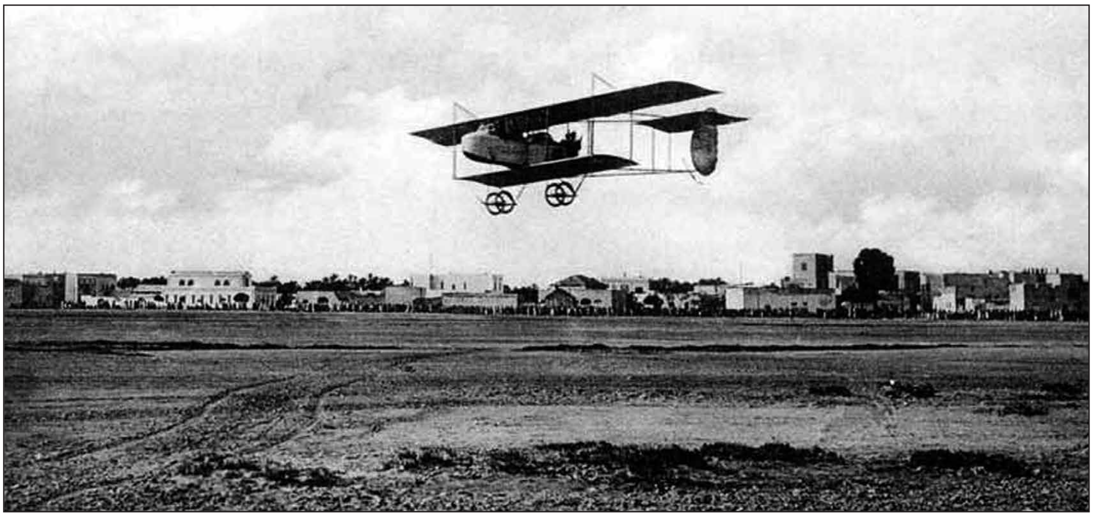
By February there were four aircraft at Casablanca, with two more arriving in late March. The unit consisted of thirty soldiers, fifteen mechanics and five pilots. The latter were Captain Pierre Clavenad, the unit's commander, Lts. Van den Vaero, Tretarre, Escot and Do Huu Vi. Their aircraft were the latest military version of the famous single-seater Blériot XI which, though more effective than the Henri Farman's sent to Algeria, was also more fragile and difficult to operate. In fact the choice of Blériots reflected a belief that climatic conditions in western Morocco were less demanding than the deserts of Algeria.

Initially the French military had adopted a defensive posture, but the achievements of Italian aeroplanes in Libya could no longer be ignored. Even before the signing of the Treaty of Fez on 30 March 1912, Julien Serviès, now a reservist-pilot, was called back to eastern Morocco where he made another aerial reconnaissance on 22 March. Seven days later a new military law gave considerable autonomy to French military aviation. The Ministry of War in Paris hoped that Morocco would serve as a testing ground for this new arrangement, especially as General Lyautey at the head of the new Moroccan Protectorate, had shown himself to be a keen advocate of military aviation.

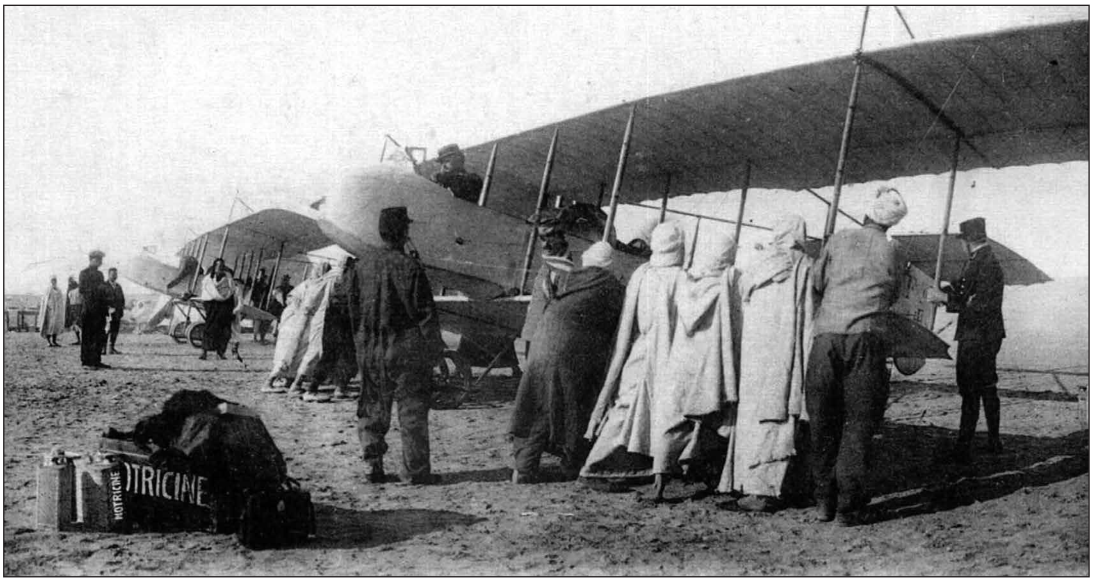
March 1912 saw a greater degree of stability in the region, with France and Germany seemingly settling their differences with the Treaty of Fez. Meanwhile the Sultan of Morocco felt in no position to object, with a French army camped outside the walls of his capital. Although Spain had virtually no say in the new Treaty, it was still allocated substantial parts of northern and southern Morocco as a Spanish Protectorate. Meanwhile a French Protectorate was agreed over the most populous and prosperous centre of the country. Here real power now lay in the hands of a Resident-General, much as real power in Egypt lay in the hands of the British Resident or Ambassador. Berber and Arab tribal leaderships in Morocco were simply expected to accept this new situation, or suffer military reprisals if they did not.

Lyautey's appointment as Resident-General in Morocco unfortunately coincided with deepening resentment and occasional revolt across the country. In fact one of Lyautey's first pronouncements made it clear that aeroplanes would be sent to burn or blow up any centres of defiance, be they nomad encampments or settled villages. He also requested that the French Army provide his aeroplane units with 300 incendiary bombs and 300 kilogrammes of fléchette steel darts to be dropped in showers. In May, Gen. Lyautey also supported Lt. Clavenad's request to move the coastal airbase from Casablanca to Rabat, from which it would be easier to maintain links with inland aerodrome near Fez. On the other hand, the degree of autonomy given to French aviation units by the new military regulations, which came into effect on 22 August, did not prove entirely suitable to North African circumstances. Hence Clavenad found himself less independent than were his colleagues back in France.

Gen. Lyautey's enthusiasm for the new "arm" of warfare was not shared by all his senior officers. Even though reconnaissance flights undertaken from 31 March onwards by pilots based at Fez, plus others flown from Rabat and Casablanca, were useful, sceptics



A Henri Farman HF.20 of what had become the Biskra squadron taking off from Qabis (Gabes) in Tunisia on 28 February 1913. This was part of an ambitious 800 km flight along the northern edge of the Sahara Desert. (Pierre Jarrige collection)



A Henri Farman HF 20s at Tozeur (Tuzir) on 27 February 1913, during the ambitious Biskra to Tunis flight. (Pierre Jarrige collection)

still argued that their results did not justify the cost of maintaining a substantial air service in Morocco. This was despite the dramatic help given to a French military column by Lts. Van Den Vaero, Tretarre and Do Huu Vi in August 1912. Even Gen. Lyautey himself came to the conclusion that the establishment of a permanent air base outside Fez had not been worth the cost and effort. The aircrew also recognised the limitations of their equipment; the aeroplanes having very slow climbing speeds, were rendered even less efficient by high temperatures, and were tossed about in violent vertical air currents. Furthermore, pilots found the countryside very confusing from the point of view of aerial reconnaissance.

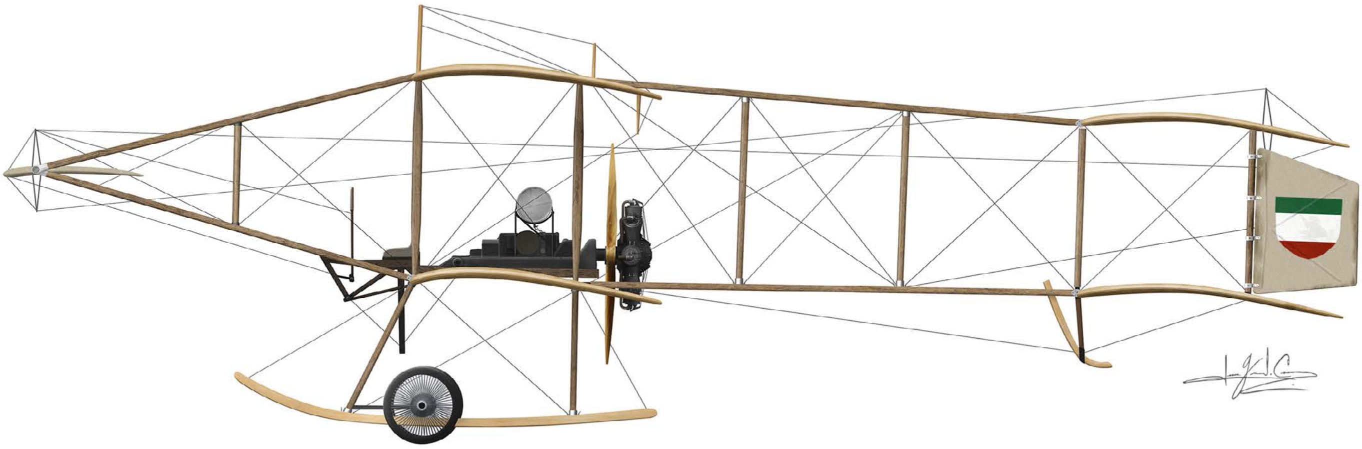
Meanwhile in north-eastern Morocco the separate air unit based at Wajda had five Gnôme powered Deperdussin two-seaters by November 1912. It was commanded by Lieutenant Jeannerod Lalanne but did not become properly operational until January 1913. Living conditions for the men remained very primitive, being crowded into one half-finished temporary building. Amongst them were five pilots, Lts. Lalanne, Jeannerod, Brunch, Magnin and Souleillan, supported by a sergeant and ten other ranks including eight technicians. During the first half of 1913, they would be joined by an administrative officer, additional NCOs and fifteen craftsmen, while the number of aeroplanes increased to ten.

A tour of inspection by Commander Felix, one of the first and most respected military pilots in France, had resulted in a frank report concerning the problems faced by French aviation in North Africa. One of his most drastic suggestions was that all the North African air units be formed into a new Fourth Group to be placed under the overall command of Gen. Lyautey in Morocco. Not surprisingly Lyautey supported the idea, but it was rejected by the French Minister of War who, like some of his most senior officers, considered it premature.

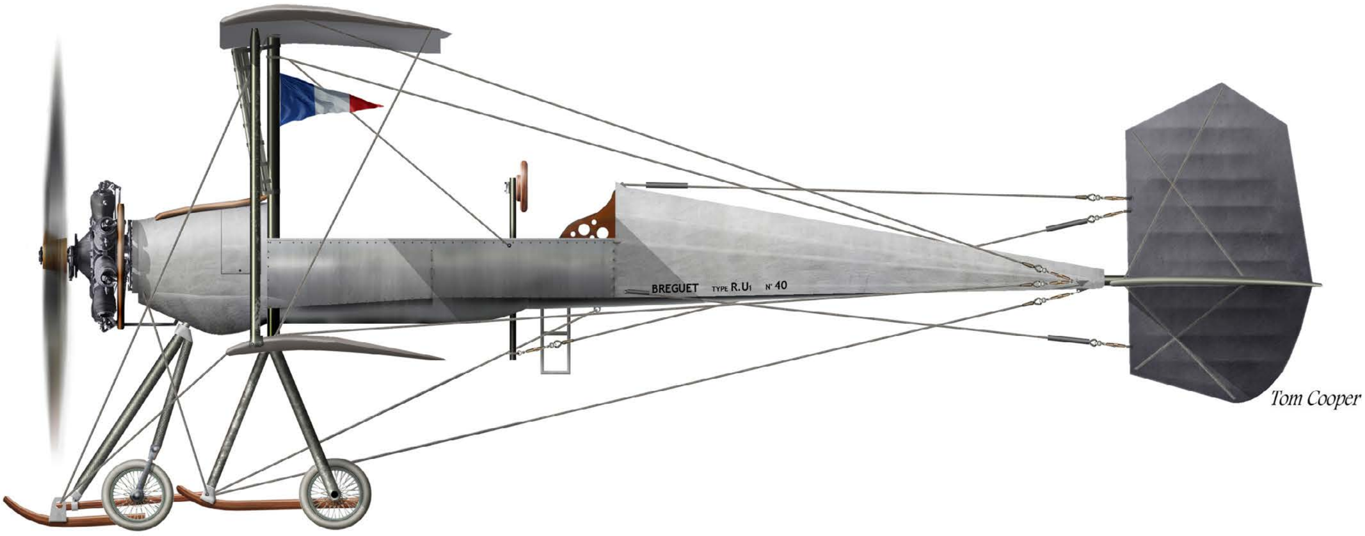
The flying units throughout French North Africa therefore remained under the authority of the Aeronautical Group at Versailles until the start of the First World War. Nevertheless, the units in Morocco were reorganised and strengthened, and as a result were able to give effective support to various expeditions designed to pacify the country. The most notable was probably the one sent south to control the ancient Atlantic port of Mogador (Esauira) in December 1912. On this occasion, the Vietnamese pilot Lt. Do Huu Vi flew a dangerous reconnaissance in a single-seater Blériot, not only identifying the locations of "dissidents" who threatened to cut off the French column, but also revived the flagging morale of troops on the ground by his appearance overhead.

For the pilots in western Morocco, however, it had been the arrival of two-seater aeroplanes which most boosted their confidence. As one newly arrived pilot, Lt. La Morlais noted in April 1913; "My two-seater allows me to carry many staff officers and puts me in their good graces". Such flights finally convinced French staff officers of the usefulness of aeroplanes during the pacification of Morocco. On the other hand, the four Blériot XI Type 1911 Aeroplanes soon needed a full overhaul which could not be done in Morocco; thus leaving only the two newer Type 1912 machines operational.

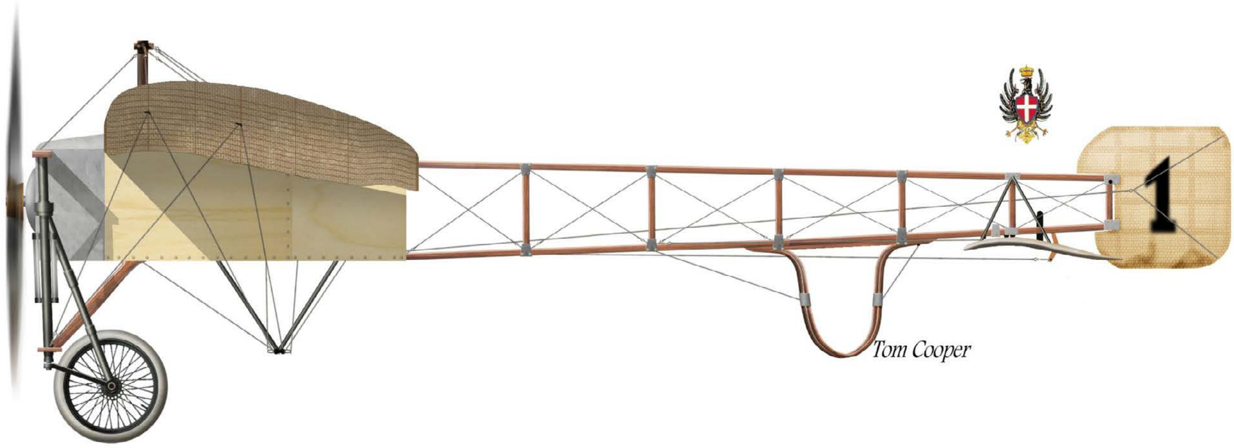
In 1913, Lt. Van Den Vaero took over command but because the unit had now expanded, he found much of his time taken up with administration. Lt. La Morlais had now arrived and the unit also acquired a three-seater Blériot as well as the new two-seater, bringing its strength up to seven machines. These larger aeroplanes enabled pilots to concentrate on flying, often under very difficult conditions, while their passengers could focus upon observation in a largely unmapped country. A crew of more than one also had a better chance of defending themselves if they had to make an emergency landing in unfriendly territory.



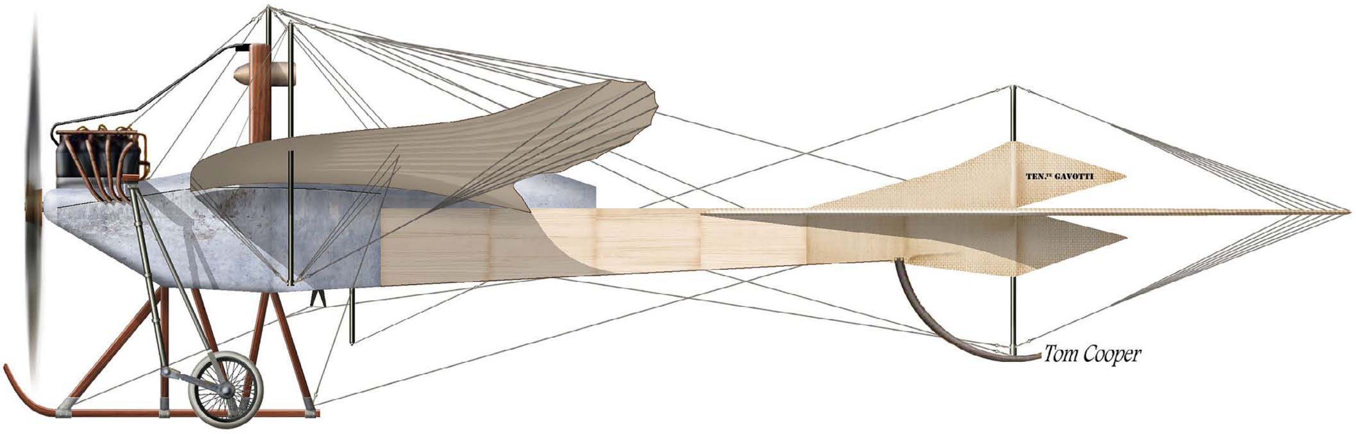
One of the two Henri Farman Type Manoeuvre 1911 of the Italian Corpo Aeronautico Militare, which were sent to Libya in late 1911. The metal bomb-dropping tube could be attached in a number of different ways, either to test which position was most effective or reflecting the crew's preference. Here it is located slightly to the left, between the pilot and the observer who would also drop the bombs. A different variation saw the bomb-tube attached to the left of the pilot, perhaps when he was flying solo. At least one of Italy's Henri Farman Type Manoeuvre 1911, still serving in North Africa shortly before the outbreak of the First World War, had a shield-shaped marking on its rudder with three horizontal bars, here interpreted as being the Italian national colours of red, white and green. (Artwork by Luca Canossa)



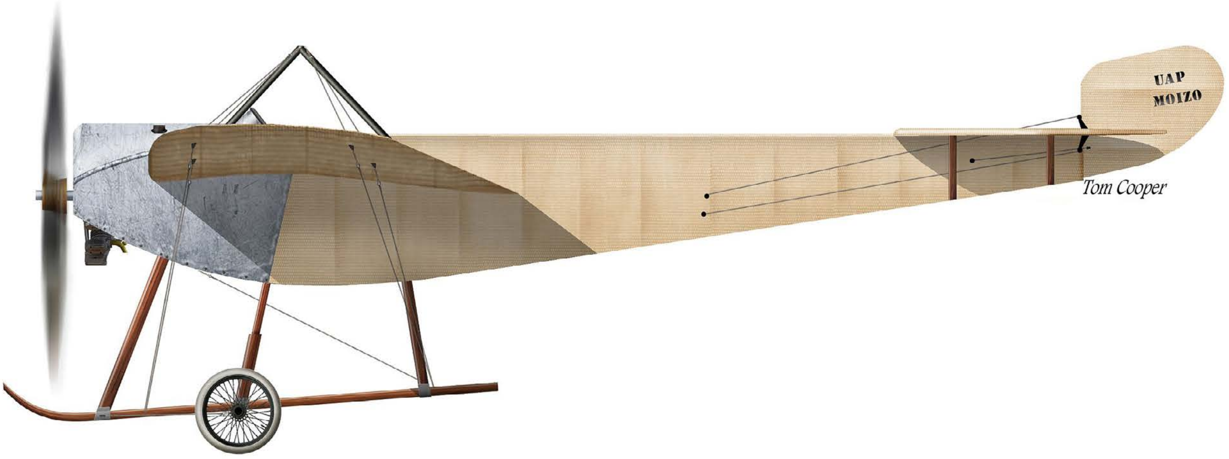
The Breguet Type 3 R.U1 flown by Henri Brégi from Casablanca to Fez, with stops at Rabat and Meknes, in September 1911. This was the first aeroplane to fly in Morocco. The Breguet Type 3 was an all metal three-seater and the small French flag attached to one of the inter-plane struts may have been added during December when Brégi and a journalist named René Lebaut carried the first airmails in North Africa. After this successful publicity visit to Morocco, the Breguet Company gave the aeroplane to the Musée des Arts et Métiers in Paris, where it can still be seen. (Artwork by Tom Cooper)



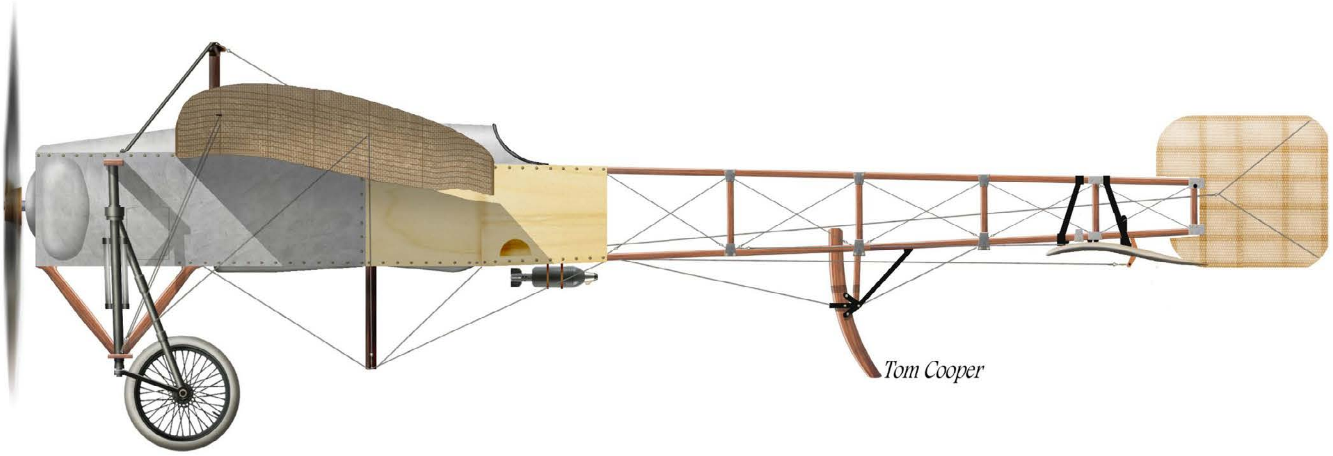
The Blériot XI flown by Captain Carlo Piazza of the Italian Corpo Aeronautico Militare in Tripolitania, in what is now north-western Libya, in 1911. The number on the tail had probably been applied when Piazza flew this machine during an air race in northern Italy in August 1911, shortly before pilot and aeroplane were sent to North Africa. It was part of the 1st [Tripoli] Aeroplane Squadron, but no other aeroplane in this unit had a number on its rudder. Inset is the first official national identification, in the form of the Arms of the Royal House of Savoy, which was painted on the tails of most if not all Italian Army aircraft in 1913. The famous Blériot Type XI was constructed in several versions, the single-seater flown by Piazza having a looped cane tail-skin and a two-strut upper pylon or cabane for the wing supporting wires. (Artwork by Tom Cooper)



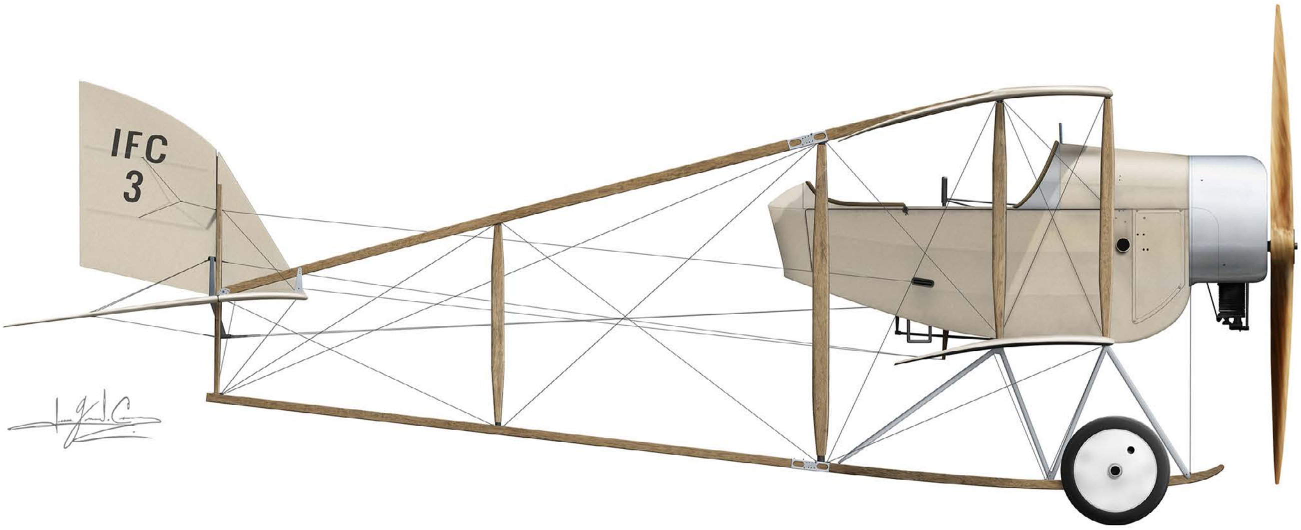
The Etrich Stahltaube, built by Lohner and powered by an Austro-Daimler engine, flown by Sottotenente (Sub-Lieutenant) Guilio Gavotti of the Corpo Aeronautico Militare. On 1 November 1911 Gavotti and his Taube dropped four small 2kg Cipelli bombs on Ottoman troops outside Tripoli, in what was the first bombing raid in aviation history. At that time no markings appear to have been added to Gavotti's aeroplane, or any Italian machines in Libya. Only a short time later, the name of an aeroplane's usual pilot was written on its tail, along with his rank. This might be visible in an unclear and distant photograph of Gavotti's Taube, and was certainly present on several other machines. (Artwork by Tom Cooper)



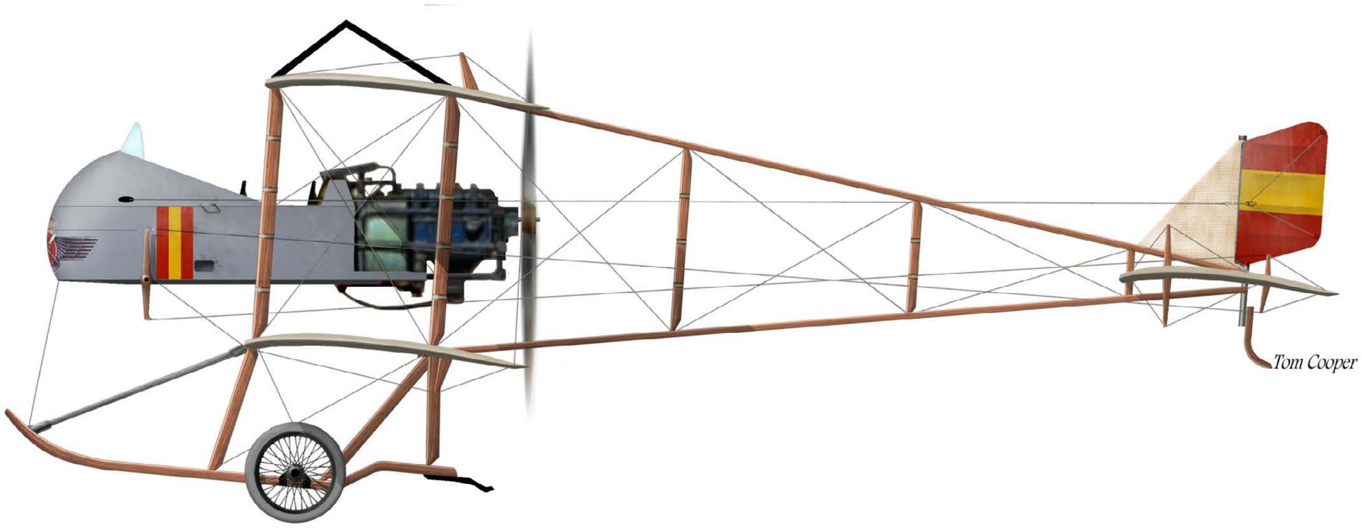
The Nieuport IV.G flown by Captain Riccardo Moizo which featured in another milestone in aviation history, being the first machine brought down by enemy fire. Moizo was forced to land in Ottoman-held territory on 10 September 1912, apparently when his engine was damaged by a shrapnel shell fired from a small mountain gun mounted at a high angle to serve in the anti-aircraft role. Photographs of the aeroplane, taken by Moizo's Ottoman captors, clearly show his name and rank on the rudder. (Artwork by Tom Cooper)



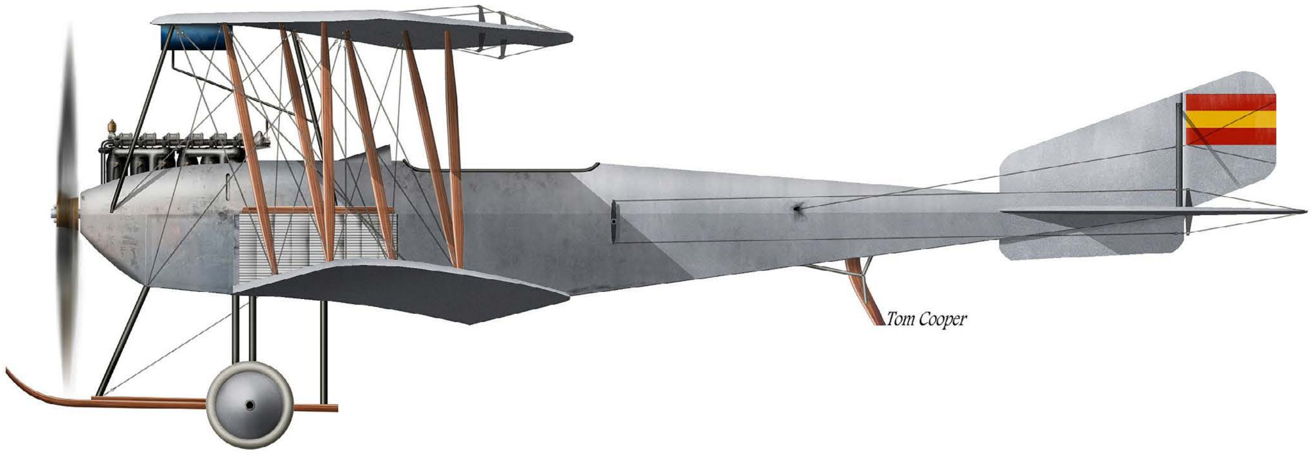
A Blériot XI-2 Artillerie two-seater with a bomb beneath the fuselage. This slightly later version of the Blériot XI was used by several air forces, including the French in their North African territories, as shown here, also by the Italians in Tripolitania and Cyrenaica, and by the Ottoman Army. More of the fuselage was covered with fabric and the two crew positions are separated while the rear of the machine has a substantial sprung wooden skid. (Artwork by Tom Cooper)



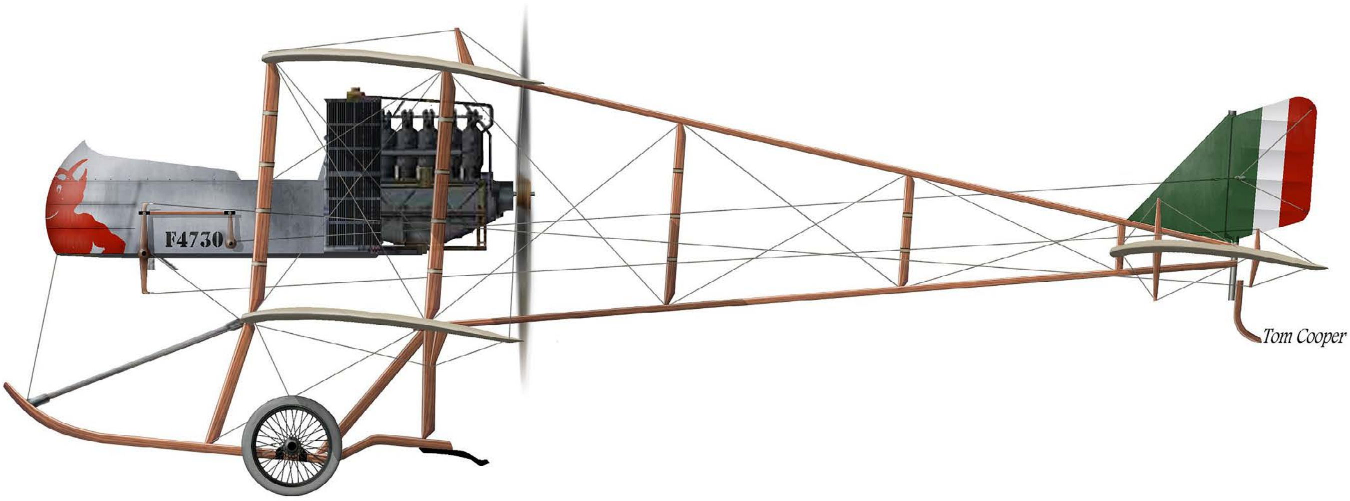
One of the Caudron G.3s, serial number IFC 3, allocated to the Indian Flying Corps which was part of the British Indian Army. Having arrived in southern Iraq on 14 May 1915, this machine was flown by the Royal Flying Corp's Mesopotamia Flight until it was forced down on 16 September. The crew, Lt. Treloar and Capt. Atkins, were captured and the Ottoman Army sent two of its most experienced airmen to Iraq to assess whether the Caudron could be repaired. This proved to be impractical, but the Caudron G.3 was nevertheless attached to the Ottoman Air Corps' No. 2 Bölük (Squadron) at Baghdad and Kut al-Amara in 1916. Ottoman national markings may also have been added to the machine's wing surfaces. (Artwork by Luca Canossa)



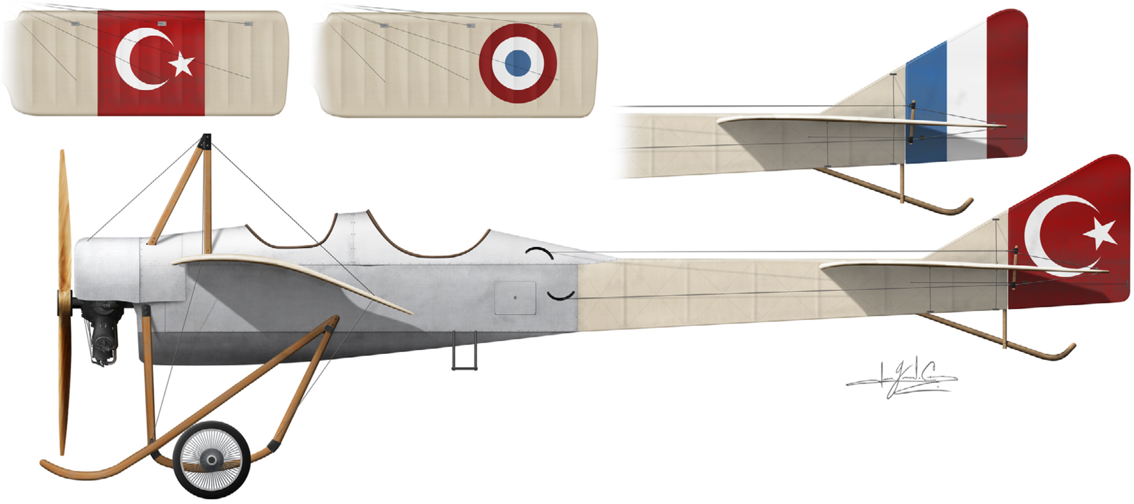
Maurice Farman MF 11 "Shorthorn" of the Spanish Army's Aeronáutica Militar in northern Morocco. These machines replaced the Aeronáutica Militar's older Maurice Farman MF 7 "Longhorns" around 1914, and would soldier on in Spain's northern Moroccan Protectorate while the First World War was fought elsewhere. These French-built machines appeared in a number of versions, those in Spanish service being powered by inline engines with radiators on the sides of the nacelle just ahead of the engine. The marking on the front of the nacelle is the insignia of the Aeronáutica Militar. In the MF 11, unlike the MF 11bis used by the French elsewhere in North Africa, the pilot sat in the front cockpit position with the observer behind him. There is no evidence that a gun was ever mounted above the nacelle in these Spanish machines. (Artwork by Tom Cooper)



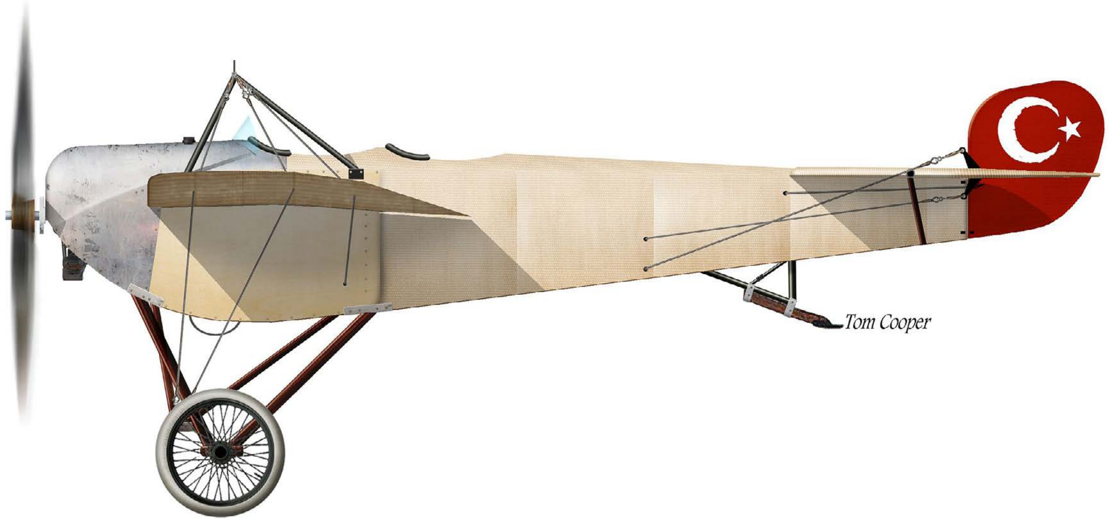
Lohner B-1 Pfeil of the Spanish Aeronáutica Militar in northern Morocco just before and during the First World War. While the other major European powers were locked in the horrors of the Great War, Spain could not import new aeroplanes so the country had to keep its pre-war machines flying as best it could. Elsewhere the Austro-Hungarian Lohner Pfeil or "Arrow" was soon removed from front-line operations because it proved fragile and difficult to maintain. In contrast, some of the Spanish Lohners kept flying in the rugged conditions of northern Morocco for years. (Artwork by Tom Cooper)



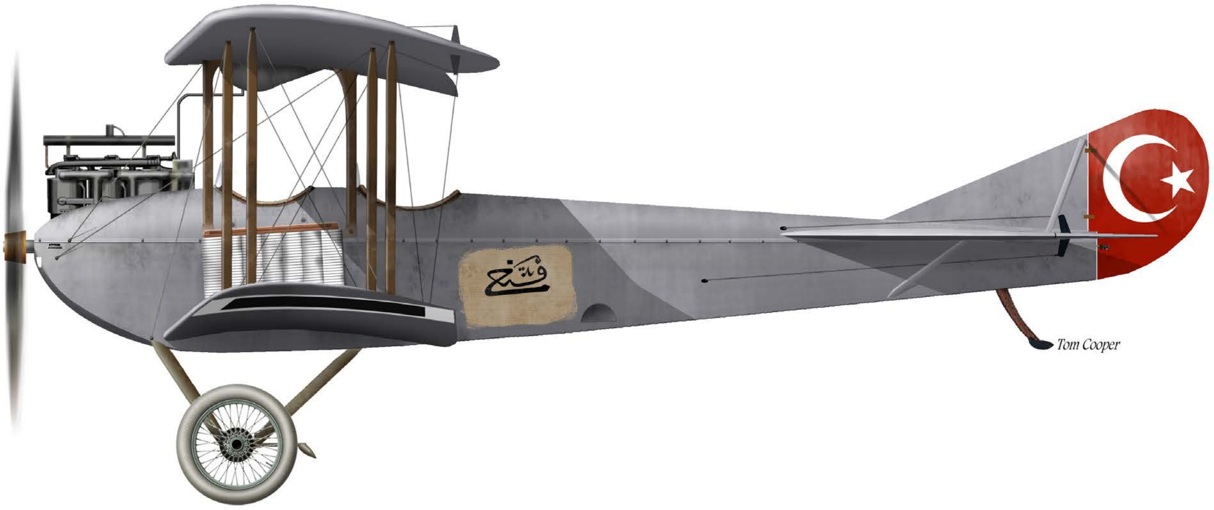
The Savoia-Pomilio SIA 5b was an Italian licence built version of the Maurice Farman MF 11, with a 100 hp Fiat-10 or 110 hp Colombo D.110 engine. Some Italian units in Libya continued to be equipped with these old but sturdy and reliable aeroplanes through the First World War, including the 104th Squadriglia's versions of the pre-First World War Maurice Farman MF 11 "Shorthorn" which were still operating in Cyrenaica in late 1918. One of the features of these SIA machines were massive radiators. Upper surfaces and tail fins were painted olive green and some also had a searchlight beneath the nacelle for night operations. (Artwork by Tom Cooper)



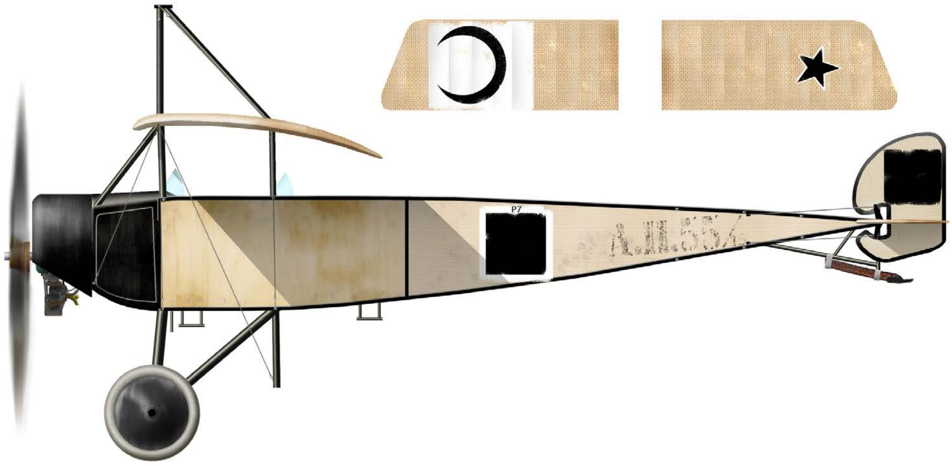
The Deperdussin TT named *Osmanli* which took part in the Ottoman Army's air arm's disastrous attempt to fly from Istanbul to Cairo in 1914, alongside the Blériot XI named *Ertuğrul*. *Osmanli*'s nameplate was probably on the front of its engine cowling. After both machines took off from Damascus, the Blériot crashed near Lake Tiberius, killing both crew members. The Deperdussin TT pressed on but, after taking off from Jaffa on 11 March 1914, it suffered engine failure and came down in the sea. The pilot, Lt. Nuri, was drowned though his observer, Capt. Ismail Hakki, survived. The three men who died were buried next to the Mausoleum of Saladin in the Syrian capital. Inset are the red, white and blue markings given to French aircraft, including the Depterdussin TTs in eastern Morocco during 1913. (Artwork by Luca Canossa)



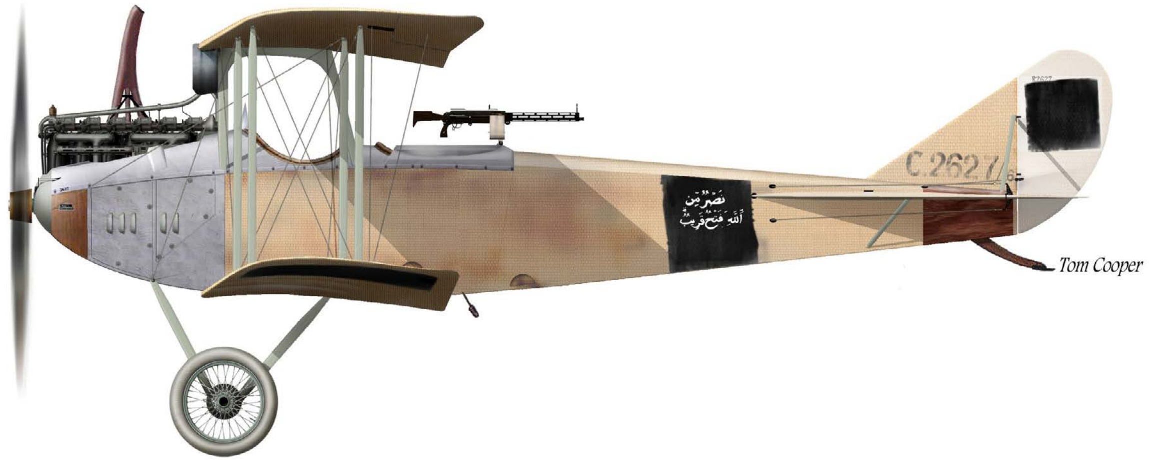
The Ottoman Army's solitary Ponnier is described as a type L1 in Turkish sources, but was probably a D1. Unlike several other Ottoman machines of the immediate pre-war period, the Ponnier does not seem to have been given a name, perhaps having been intended as the personal aeroplane of the French Capt. the Marquis De Goÿs de Mezeyrac who was the air arm's senior officer until the outbreak of war. Neither intended nor suitable as a warplane, the little Ponnier was nevertheless rushed to Syria in February 1915 in an attempt to provide the Ottoman Fourth Army with at least one aeroplane, but was written off in a forced landing and so the Ottoman Fourth Army still had no air assets. (Artwork by Tom Cooper)



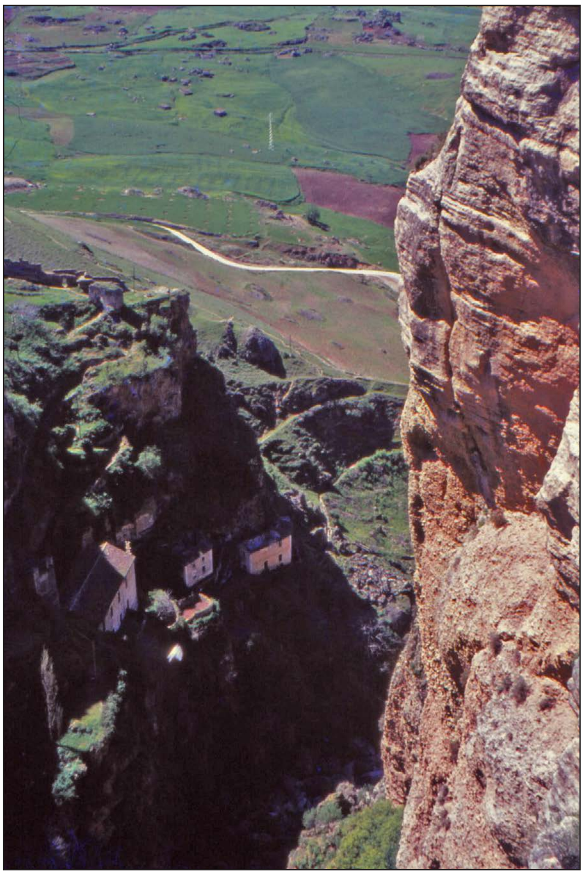
The solitary Rumpler 4A/13 of the Ottoman Army's air service on its way to Syria in late 1914. This 100 hp Mercedes D.I 105 PS powered version of the basic Rumpler 4A military biplane had been flown from Germany to Turkey by Gustav Basser and Engineer Doctor Elias in July 1914. It was then purchased for the Ottoman Army and given the name *Fethi*, written on what seems to have been part of the fuselage where the original Rumpler grey dope had been crudely overpainted or removed. When the Ottoman Empire entered the Great War as Germany's ally, the Rumpler 4A/13 and its pilot Şâkir Fevzi were allocated to the Fourth Army in Syria, to support its invasion of British-ruled Egypt. Having avoided being destroyed by British naval shelling near Iskenderun, the Rumpler was damaged in a landing accident outside Aleppo on 28 December 1914 and never reached the front. (Artwork by Tom Cooper)



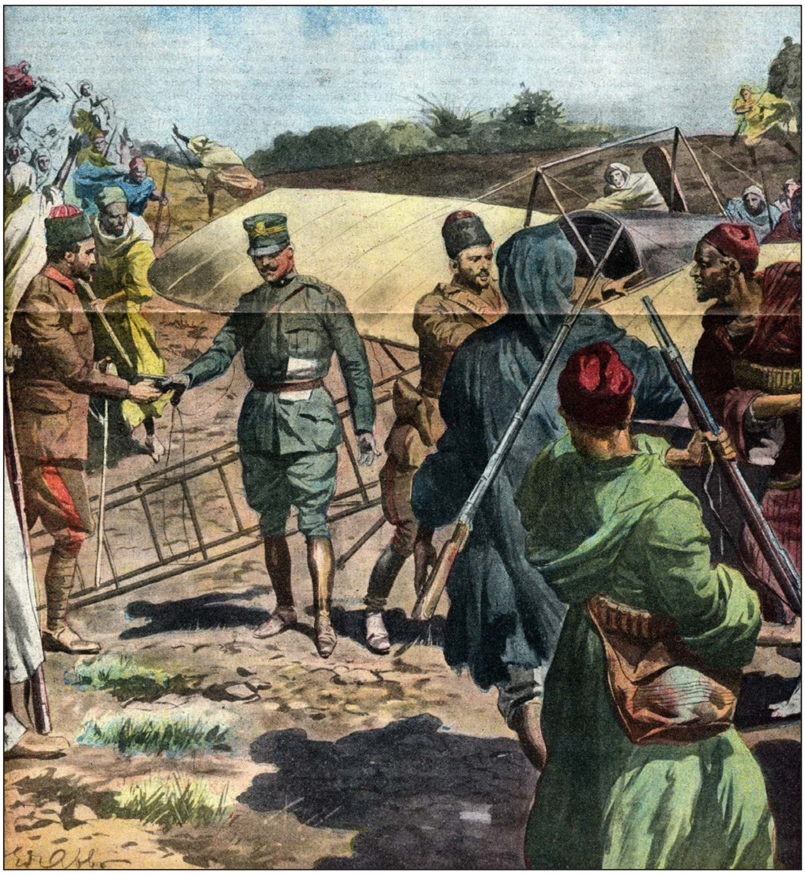
Pfalz A.II of the Ottoman 3rd Bölük(3rd Squadron) in the Hijaz. This aeroplane was a German made version of the French Morane Saulnier Type L, and had previously carried large black German crosses plus a German serial number. Serial number P7 shown here was ex-German A.II.55/15. The Pfalz A.IIs sent to the Hijaz were hurriedly given "Islamic" style Ottoman markings, probably in Damascus, in the form of a large crescent and star beneath their wings but not on fuselages, rudders and both above and below the elevators. These retained the normal Ottoman black square outlined in white. At least one of the Hijaz Pfalz A.IIs had a crescent beneath one wing and a star beneath the other, as shown here, while at least one other had a crescent and star beneath each wing (see page 77). (Artwork by Tom Cooper)



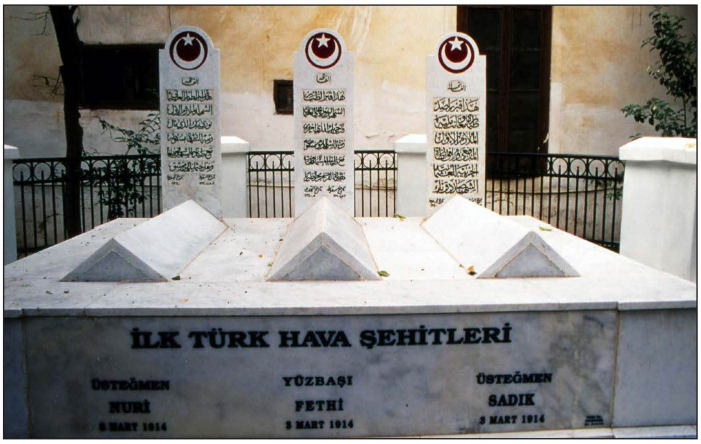
Rumpler C.Ia of the Ottoman 3rd Bölük (3rd Squadron), at Ma'an on what is now southern Jordan in late March 1918. This rather well-worn aeroplane had the Ottoman serial number R 2627, which is barely visible above the black square national marking on the rudder. It was previously used by the German Luftstreikrafte Pasha FA 33 squadron in Palestine where its serial number had been C.2627/16. The white Koranic inscription on the fuselage national marking was probably added when the machine was based at Madina in the Hijaz, where it was used by the 3rd Bölük in 1917 before being withdrawn to what was then called southern Syria. The Arabic text is from Verse 13 of Surah Al-Saff, the 61st chapter of the Koran and reads "Nasrun min Allah wa Fathun Qaribun" which translates as "Help from God and a speedy victory". (Artwork by Tom Cooper)



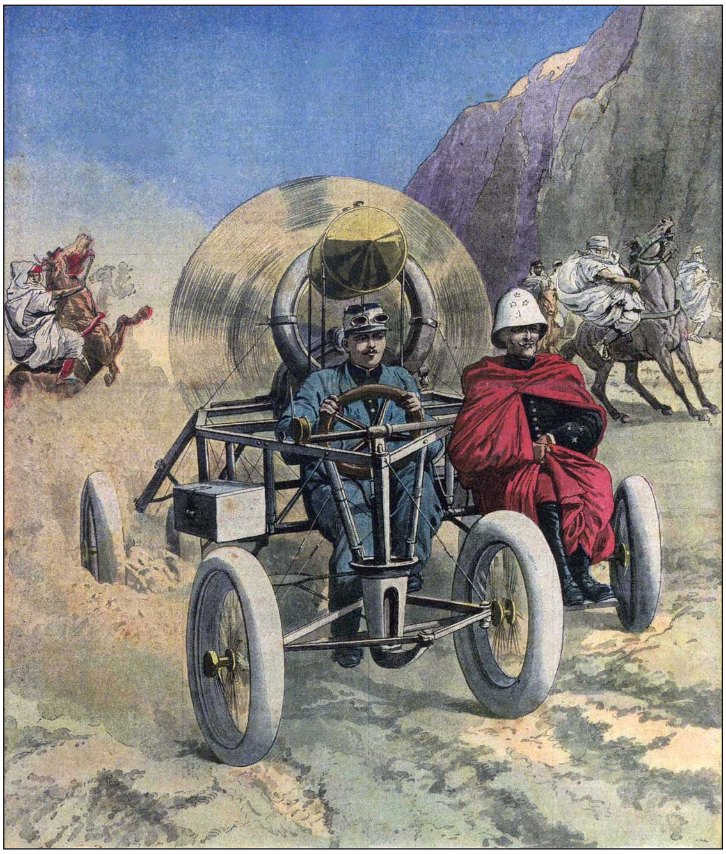
When Abbas Ibn Firnas attempted to fly from a "high place" in his home city of Ronda in Andalusia in the mid-9th century AD, he may have used an updraft of air somewhere in Ronda's dramatic gorge. Remarkably, Abbas remained airborne for some time and then landed back where he had started, though badly injuring his leg in the process. (Author's photograph)



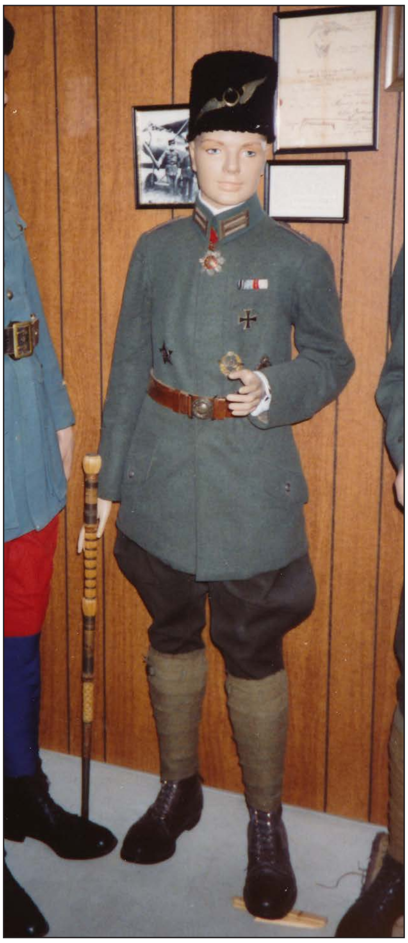
The most notable "first" associated by Moizo was that of being the first pilot shot down by enemy fire. His capture by Ottoman forces grabbed headlines across the world, not least in Italy itself, though the front page of the weekly *Tribuna Illustrata* of 22-29 September 1912 apparently gives him a Blériot rather than a Nieuport aeroplane. (Author's collection)


İLK TÜRK HAVA ŞEHİTLERİ
ÜSTEĞMEN NURİ 3 MART 1914
YÜZBAŞI FETHİ 3 MART 1914
ÜSTEĞMEN SADIK 3 MART 1914

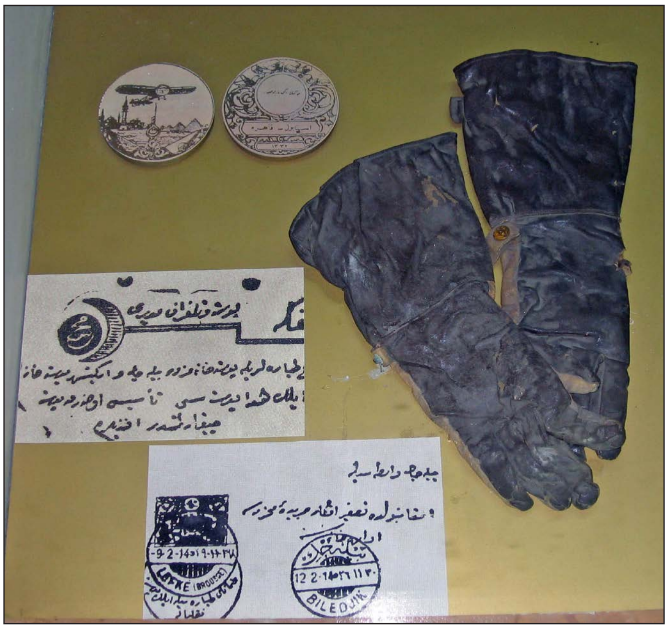
The graves of the three Ottoman airmen who died during their attempted flight from Istanbul to Cairo. They lie next to the mausoleum of the great Sultan Saladin in Damascus. (Author's photograph)



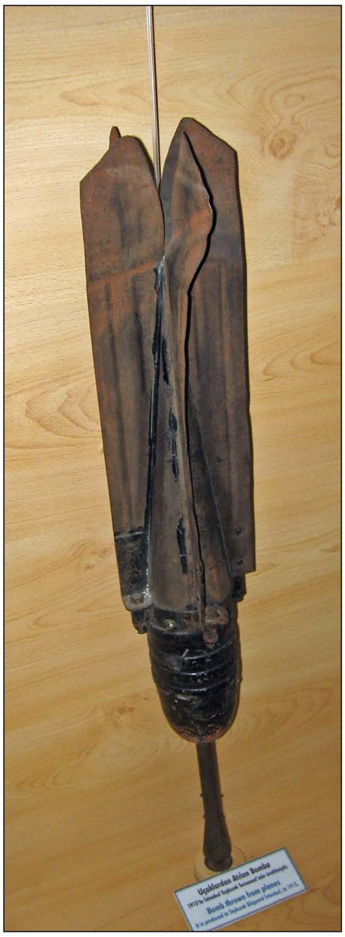
An illustrator's somewhat fanciful representation of the *Sauterelle* (Grasshopper), a propeller driven desert vehicle which reportedly took Gen. Baillaoud from Biskra to Tuqurt (Touggourt). In reality the General travelled aboard another propeller powered vehicle called the *Aerosable*. (Front page of *Le Petit Journal* on 5th January 1913)



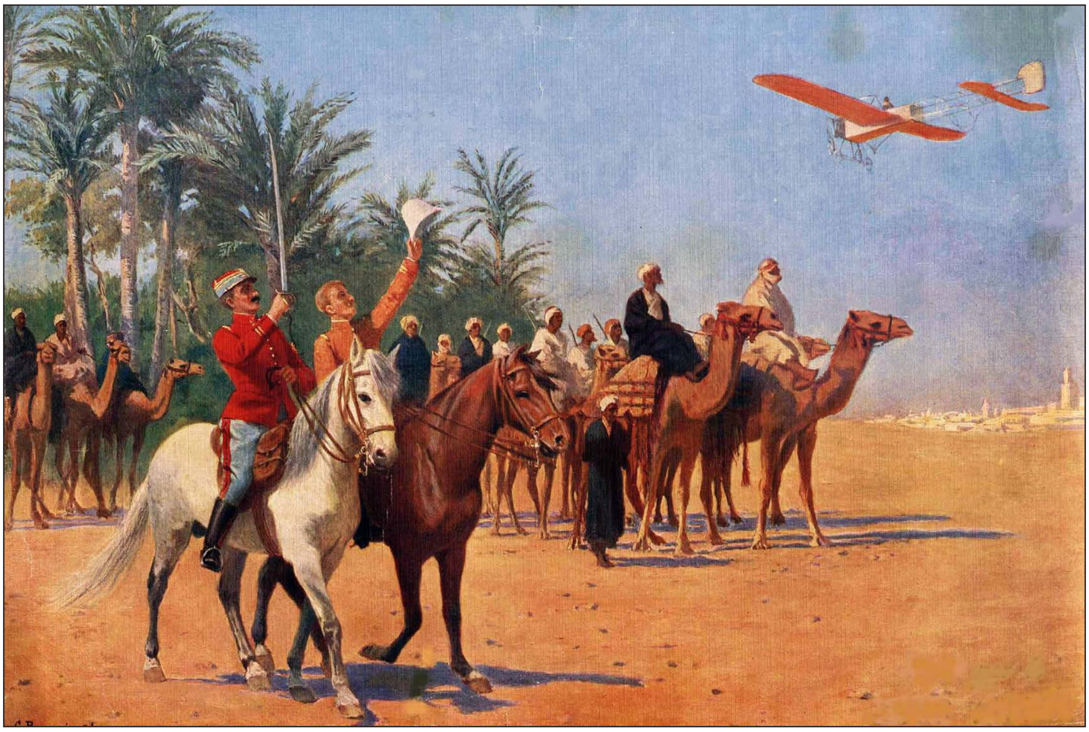
The uniform of a German pilot in Ottoman service, perhaps August Quoos who served in this region in 1917 and 1918. (Lafayette Foundation Museum, Denver)



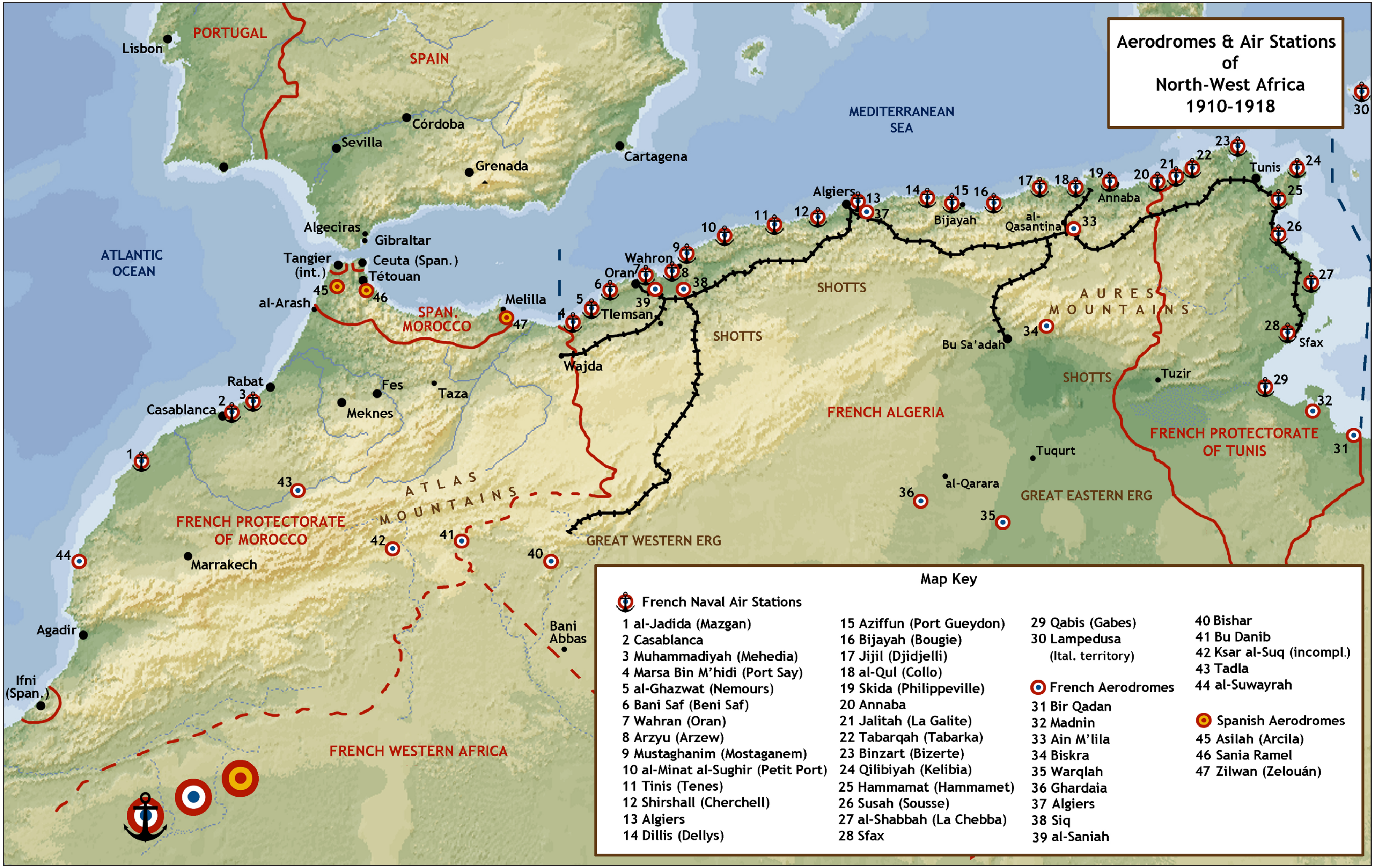
On display in the Turkish Air Force Museum outside Istanbul are various items associated with the epic though tragic flight to Cairo in early 1914. They include a pair of heavy flying gloves. (Author's photograph)



A bomb, designed to be dropped from the air, manufactured in the Taskizak Shipyard in Istanbul in 1915. In almost all other respects Ottoman flying units were entirely dependent upon Germany for their equipment and munitions. (Turkish Air Force Museum, Author's photograph)

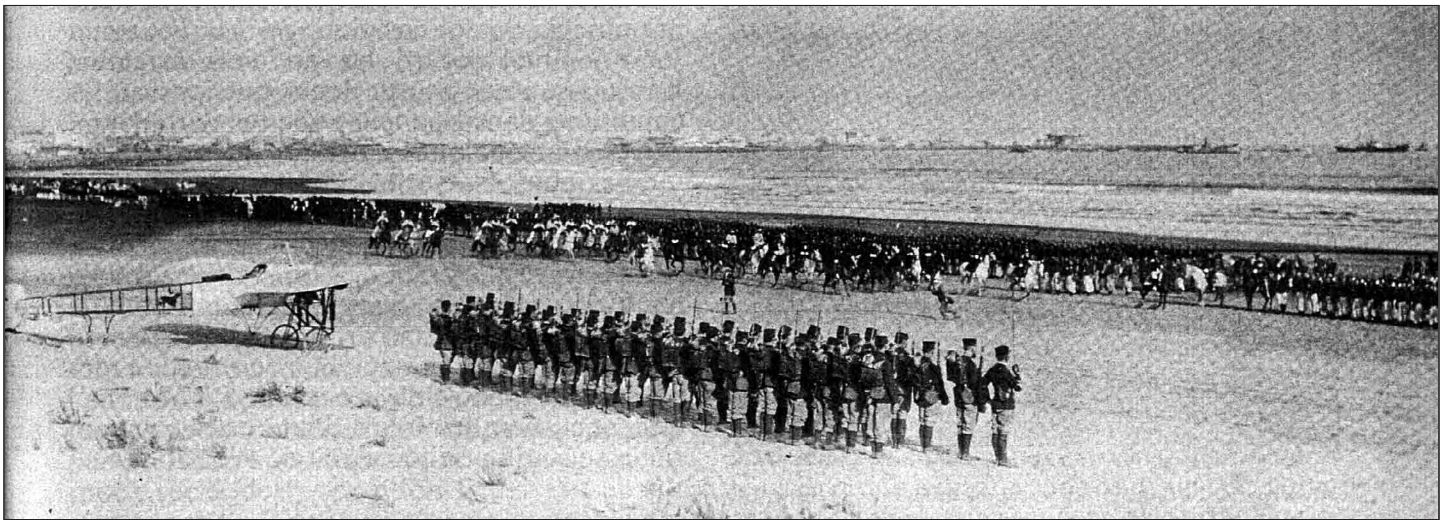


Not surprisingly the activities of French aviators in North Africa were celebrated in France itself, for example in this patriotic artist's impression of a Blériot flying over two smartly dressed French officers and a local camel caravan. (Front page of *Le Petit Journal*, date unknown)



Aerodromes & Air Stations of North-West Africa 1910-1918

Map Key
French Naval Air Stations
1 al-Jadida (Mazgan)
2 Casablanca
3 Muhammadiyah (Mehedia)
4 Marsa Bin M'hidi (Port Say)
5 al-Ghazwat (Nemours)
6 Bani Saf (Beni Saf)
7 Wahran (Oran)
8 Arzyu (Arzew)
9 Mustaghanim (Mostaganem)
10 al-Minat al-Sughir (Petit Port)
11 Tinis (Tenes)
12 Shirshall (Cherchell)
13 Algiers
14 Dillis (Dellys)
15 Aziffun (Port Gueydon)
16 Bijayah (Bougie)
17 Jijil (Djidjelli)
18 al-Qul (Collo)
19 Skida (Philippeville)
20 Annaba
21 Jalitah (La Galite)
22 Tabarqah (Tabarka)
23 Binzart (Bizerte)
24 Qilibiyah (Kelibia)
25 Hammamat (Hammamet)
26 Susah (Sousse)
27 al-Shabbah (La Chebba)
28 Sfax
29 Qabis (Gabes)
30 Lampedusa (Ital. territory)
French Aerodromes
31 Bir Qadan
32 Madnin
33 Ain M'lila
34 Biskra
35 Warqlah
36 Ghardaia
37 Algiers
38 Siq
39 al-Saniah
40 Bishar
41 Bu Danib
42 Ksar al-Suq (incompl.)
43 Tadla
44 al-Suwayrah
Spanish Aerodromes
45 Asilah (Arcila)
46 Sania Ramel
47 Zilwan (Zelouán)
PORTUGAL
SPAIN
Lisbon
Sevilla
Córdoba
Grenada
Cartagena
Algeciras
Gibraltar
Tangier (int.)
Ceuta (Span.)
Tétouan
al-Arash
Melilla
SPAN. MOROCCO
ATLANTIC OCEAN
MEDITERRANEAN SEA
Rabat
Casablanca
Fes
Meknes
Taza
Marrakech
Agadir
Ifni (Span.)
FRENCH PROTECTORATE OF MOROCCO
ATLAS MOUNTAINS
FRENCH WESTERN AFRICA
Bani Abbas
GREAT WESTERN ERG
Wajda
Tlemsan
Oran
Wahron
Algiers
SHOTTS
Bijayah
al-Qasantina
Annaba
Tunis
Sfax
AURES MOUNTAINS
Bu Sa'adah
Tuzir
FRENCH ALGERIA
Tuqurt
al-Qarara
GREAT EASTERN ERG
FRENCH PROTECTORATE OF TUNIS



The Blériot XI of Lt. La Morlais at the parade and march-past which celebrated its pilot's receiving the Legion d'Honneur at Casablanca on 14 July 1913.

The year 1913 would see the French expand their horizons in North Africa, moving from simple tactical support in the pacification of Morocco towards a strategic aerial "conquest" of the Sahara Desert. Between 12 and 15 April 1913 a formation flight by four Farmans from Biskra, via Tuqurt to Warqlah and back, showed Col. Bouttieaux, Commander of the 1st Groupe d'Avation, what was now possible in the desert. In fact, he was so impressed by Lt. Lafargue's organisation that a month later Lafargue found himself transferred to the central air headquarters at Versailles outside Paris. There he became Bouttieaux's chief assistant on 27 June. Meanwhile the unit at Biskra was placed under the command of Lt. Reimbert. Yet it remained clear to Bouttieaux that existing aircraft could not safely stray from established routes. The technology was not yet available to permit free-ranging exploration of the harsh Sahara and the aeroplane's main impact in the colonies remained psychological.

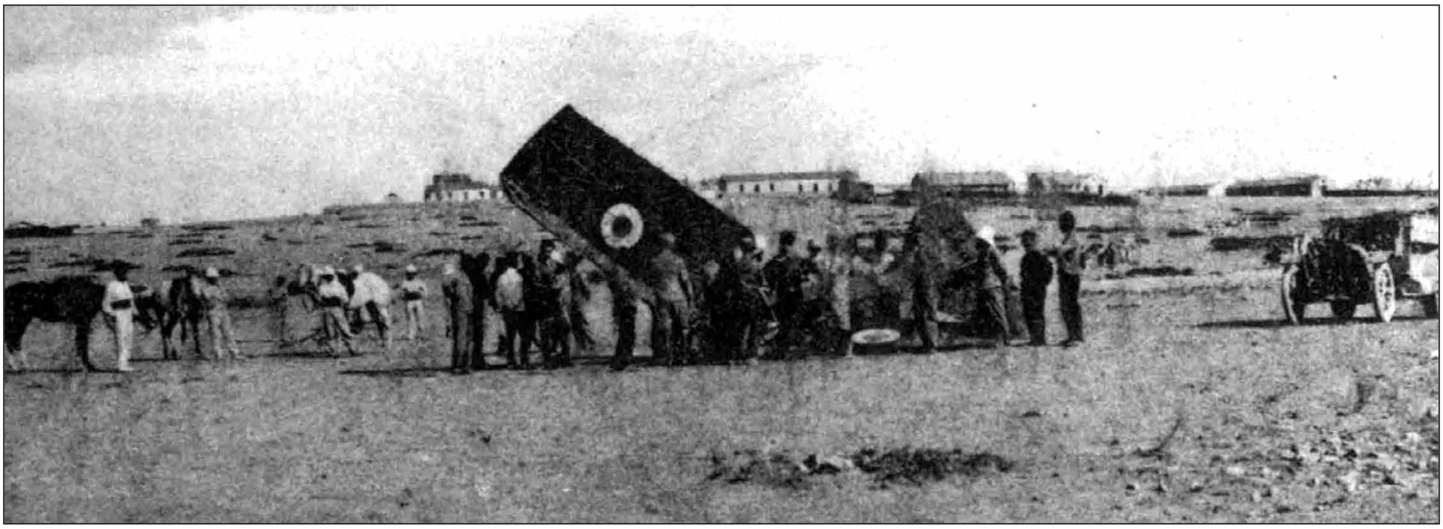
Lafargue had already helped organise one of the first French aerial expeditions in neighbouring Tunisia where Lt. Reimbert undertook a daring 800 km flight along the semi-desert northern edge of the Sahara, over the Shotts or dried salt lakes of al-Melghir, al-Jerid and al-Charsa before heading north to Tunis, with stopovers in the main oases and coastal towns of Tuzir, Qabis, Sfax and Susah. This would be the first serious French air operation in Tunisia, so it had to be completed without a hitch. After weeks of preparation, four Henri Farmans led by Lt. Reimbert took off from Biskra on 26 February 1913 and reached the race-course outside Tunis on 3 March, having been delayed by a storm near the end of their journey. Eleven days later they flew on to the French naval base at Binzart where they would be joined by the ground crews who had been sent overland from Biskra. It was also intended that Biskra itself would be abandoned.

Gen. Pistor, the senior French commander in Tunisia, declared himself well satisfied and within a month or so the aerodrome at Manouba outside Tunis became the centre of a new French aerial establishment in Tunisia. Unfortunately, it would take time to provide the highly motivated young men at Manouba with their own Henri Farman HF.20s, and they were still waiting when the famous French aviator Roland Garros arrived on 24 September. The previous day he had landed at Binzart following an epic first flight across the Mediterranean in a Morane-Saulnier Type G. The unit's own aeroplanes did not arrive until November. Meanwhile the desert aerodrome at Biskra and its satellite fields lay virtually abandoned.

The military and political significance of Garros' flight across the Mediterranean was not lost upon the French authorities. Nevertheless, the establishment of the French Naval Air Service's first squadron at Saint-Raphael and Nice on the French Mediterranean coast on 18 December was not followed by a comparable base on the southern shore of the Mediterranean. Instead priority was given to the ship *Foudre*, the French Navy's first seaplane tender. She would take part in naval manoeuvres near Binzart in Tunisia and Philippeville (now Skikda) in Algeria from 14 to 30 May 1914 so successfully that plans were drawn up for a significant expansion of the French naval air arm. As a result, the French Navy would be able to rapidly send aeroplanes to help to British and Egyptian troops defending the Suez Canal after the Ottoman Empire entered the First World War. This was despite the fact that there were still no naval air bases in North Africa.

Away to the west, in Morocco, French pilots were still supporting various military columns as they tried to pacify the many areas which still seethed with discontent. The approach of summer heat not only made flying more hazardous and highlighted some problems with the aircraft hangers, but also seems to have shortened tempers. Disputes and quarrels broke out about administration and finances. Accusations were levelled against various officers and pilots, and eventually Capt. Clavenad was recalled to Paris to report. When refused the reinforcements and replacements he required, Clavenad went public. He wrote an article which denounced what he saw as a lack of interest by the military and political authorities. It was published on 20 July 1912 and caused a scandal, so Clavenad was promptly relieved of his duties in the expanding French air service. Capt. Pierre Clavenad was not only transferred to the infantry but was arrested for insubordination. He was eventually killed in a ballooning accident on 16 April 1913.

Back in Morocco the Vietnamese Lt. Van Den Vaero took over Clavenad's command and made significant changes. He consolidated most of his assets in Casablanca where the aerodrome was enlarged, while also opening a new flying route to Marrakesh in southern Morocco. Unfortunately, some pilots felt that Van Den Vaero had shown disloyalty to his former chief, which weakened discipline. One pilot flew to Fez against specific orders and was therefore sent back to France in disgrace. This and other episodes undermined morale amongst young pilots, some of whom were not particularly amenable to discipline in the first place. However, they also contributed to a growing mystique about military pilots. Such men came to be seen as wayward young heroes who did things their own way. It would be a mystique that grew even stronger during the



The Deperdussin which crashed at Wajda (Oudja) on 24 September 1913, killing Lt. Souleillan who was the first fatality suffered by French aviation in eastern Morocco. The newly applied red, white and blue cockades are clearly visible beneath its wings.

First World War and is still seen today.

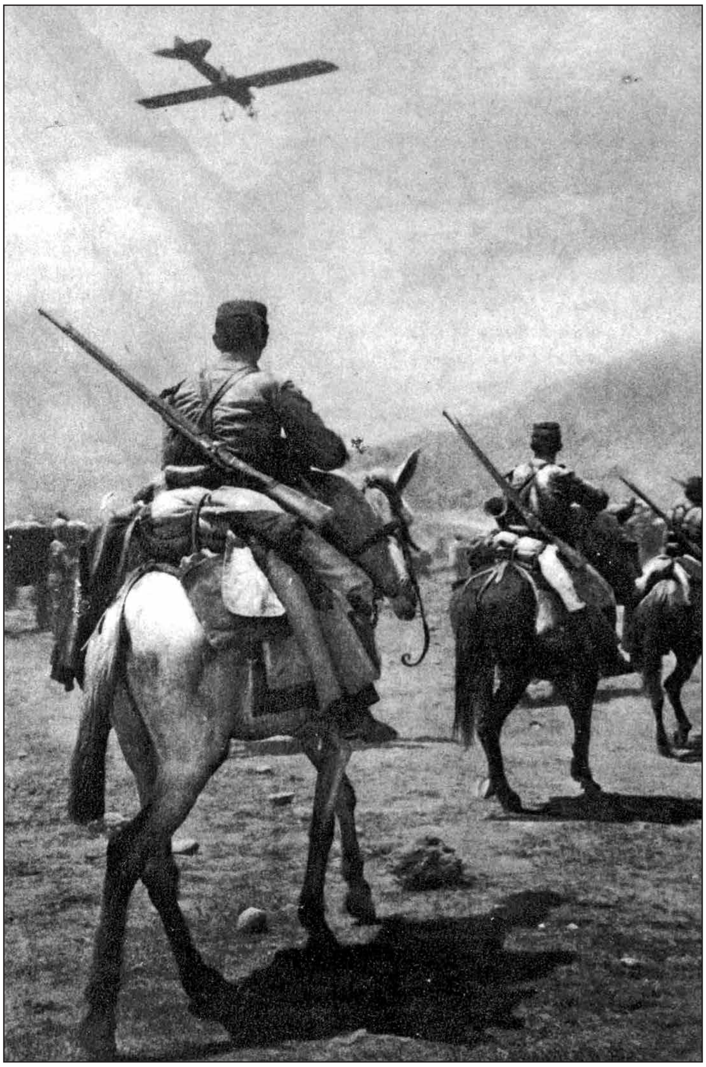
What might be called a new front was opening in southern Morocco during January 1913, but for the pilots the primary focus of attention was still on the east and west of the country. From February, the aviation section made a significant contribution to the French advance towards Taza, while in the west the first French offensive aerial sorties successfully dropped incendiary bombs on centres of resistance during spring. Fléchette steel darts had already been dropped with much less effect the previous autumn. On the ground local Berber and Arab fighters had quickly learned to hide under trees as soon as they heard an aeroplane engine, rendering aerial reconnaissance increasingly difficult. Furthermore, the turbulent air currents of summer led to several accidents in the upland areas.

On a more positive note the first Moroccan to fly was Tahami al-Klawi, the Pasha or governor of Marrakesh who was widely known to Europeans as the Lord of the Atlas. He was taken up in a Blériot XI by Lt. Lt. Do Huu Vi who also gave a flight to Shaykh Shoua'ib Doukali of Marrakesh on the same day.

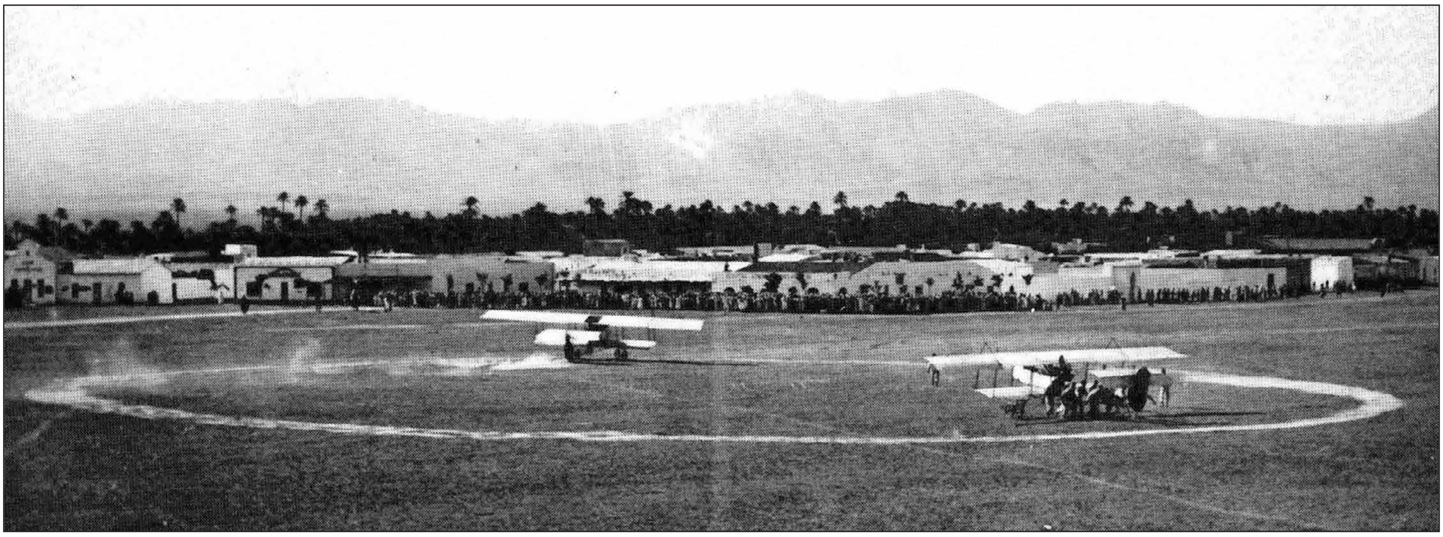
Spring 1913 saw the organisation of French military aviation in Morocco reach the form that it would retain until the outbreak of the First World War. Its purpose was now clear and its position fully established under the command of Capt. De Chaunac-Lanzac, who was in charge from March 1913. In July, Lt. La Morlais was presented with the Légion d'Honneur in a ceremony on the beach at Casablanca. Some other officers and men were sent to other locations, including Lts. Cazes and Do Huu Vi, while the new pilots Captain Hervé, Lieutenant Sainte-Laguë and Sergent Faure, arrived.

In August Gen. Lyautey decided to set up two school of air observation, one in Casablanca and the other in Rabat. However, the aircraft remained the same, with Blériots based in western Morocco and Deperdussins in the east. On the other hand; both types had clearly reached their operational limits so Captain De Chaunac-Lanzac requested that all air units in Morocco be re-equipped with Henri Farman HF.20s; the type that had proved so effective at Biskra in Algeria. He considered them not only sturdier and more reliable, but believed they had the potential to be armed with a machine-gun. In the event De Chaunac-Lanzac's request was turned down in January 1914 because there were not enough pilots trained on the HF.20. By then the unit in eastern Morocco had suffered its first fatality when Lt. Souleillan crashed at Wajda on 24 September 1913.

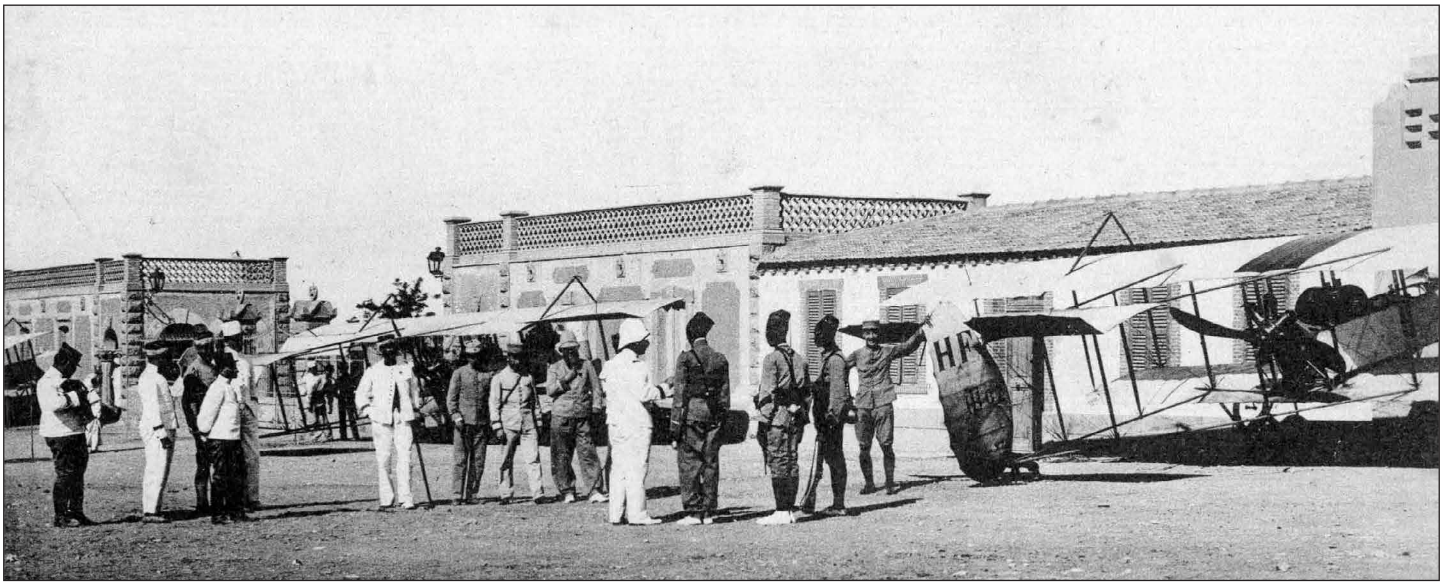
Until the crisis of July and early August 1914, it was business as usual for the French airmen in North Africa. Tension between France and Germany had become a fact of life, but additional tensions resulting from the First and Second Balkan Wars, as well as the Italian invasion of Libya, caused ripples across the Sahara Desert and meant that French air units in North Africa became increasingly important. Italy remained a member of the Triple Alliance with Germany and Austria, though French diplomatic efforts to weaken



A Deperdussin TT flying over French colonial mounted troops in eastern Morocco, reportedly during May 1914.



A Henri Farman HF.20 landing at Bishar (Colomb-Bechar) during a flight by five aircraft, intended to link France's three North African territories of Tunis, Algeria and Morocco in May and June 1914. The landing area is marked by a large circle on the ground. (Pierre Jarrige collection)



Three Henri Farman HF.20s at Bishar during the long distance flight of May-June 1914. (Pierre Jarrige collection)

these ties were having some success. Indeed, from 1913 onwards an Italian attack across the Alps was no longer seen as a real threat to France. Even so, Franco-Italian rivalry in Tunisia remained and probably accounted for the transfer of the French air unit from Biskra to Tunis.

In autumn 1913, Capt. Reimbert drew up an ambitious plan to survey the theoretical border of French colonial territory as far as the Tibesti Mountains in the central Sahara. It was to be carried out by six aeroplanes. The plan was passed to the Ministry of War but it was thought over-ambitious given the limited available technology. It was also feared that such an aerial expedition might cause a diplomatic crisis with Italy and could also endanger French prestige if, as seemed likely, it failed. So in spring 1914 Gen. Pistor, the French commander in Tunisia, ordered Captain Reimbert to conduct a more limited aerial survey of the ill-defined desert frontier between Libya and Tunisia. In the event, events in Europe interrupted this planned operation.

Meanwhile the French high command decided to repatriate much of its air assets from Algeria, so the outbreak of war between France and Germany on 3 August 1914 merely accelerated a process that was already in motion. The French National Air League had also advocated another ambitious project, this time for a trans-Saharan flight from Bishar to Timbuktu in April 1914 but this was again turned down by the War Department. In fact Charles Lutaud, the Governor-General in Algiers, dismissed it as an "infinitely dangerous sporting exercise". Thus ended the first era of air exploration of the deep Sahara, which would not be revived until after the First World War.

Greater interest was focussed upon more immediately useful east-west aerial communication between the three French "colonies" of Tunisia, Algeria and Morocco. Lt. Lafargue returned to North Africa at the end of March 1914 and spent the next two and a half months looking for suitable landing sites. Late the previous year, Capt. Reimbert had drawn up an ambitious plan for six aeroplanes to fly from Tunis to Casablanca via Algiers, Oran, Wajda, Fez and Meknes. This would have taken them over mountain ranges, as was already being done by pilots in Europe, but would also mean flying across hostile, unpacified territory in Morocco. Gen. Lyautey was strongly against the idea and the plan was reviewed by the War Office in Paris. As a result a modified and less spectacular version was proposed which would take the aeroplanes as far as Wajda in eastern Morocco, then along the edge of the Saharan Atlas range, close to a vast area of shifting sand called the Great Western Erg. After reaching Bishar the pilots would head back to Tunis, along the northern edge of the Sahara Desert via Ain Sefra, al-Baydh, al-Aghwat, Biskra, Tuzir and Sfax.

The Henri-Farman HF.20s at Bishar, with the closest aeroplane clearly showing a dark rectangle (perhaps red) in the centre of its upper wing. This was probably to make the machine more visible from the air in case of an emergency landing. The number at the bottom of its rudder appears to be 97.

Despite being an ambitious project, this version received official approval and on 10 March 1914 the Minister of War ordered the commander of the Sahara squadron to go ahead. After a preliminary reconnaissance by Capt. Reimbert, Lt. Ménard and Quartermaster Denoist, five Farman HF.20s led by Lt. Battini left Tunis in the morning of 6 May. A motorised ground support unit under Lt. Jolain had already gone on ahead. Almost immediately the aeroplanes suffered a number of technical problems and were also grounded for three days by a storm at Shellalah which damaged two of the machines. The three remaining Farmans (numbered 68, 97 and 98), flown by Lt. Cheutin, Lt. Ménard and Sgt. Hurard, reached Wajda on 11 May.

Following a belated and perhaps reluctant approval by Gan. Lyautey, the visiting Minister of War now gave permission for them to press on to Taza. Firstly, however, the squadron had to be virtually rebuilt. Three new aeroplanes arrived, of which two were selected. Then, on 27 May, the airmen were given a real military job, delivering urgent despatches from the military HQ in Wajda to the front-line intelligence centre at Taza. The aeroplanes were not supposed to remain near the area of active combat, and so returned to Wajda the following day. The return flight to Tunis was even more difficult and faced technical problems as well as storms. Three aeroplanes eventually reached Géryville in a somewhat battered condition, so the pragmatic Joseph Noulens ordered their crews to go my train to Tunis.

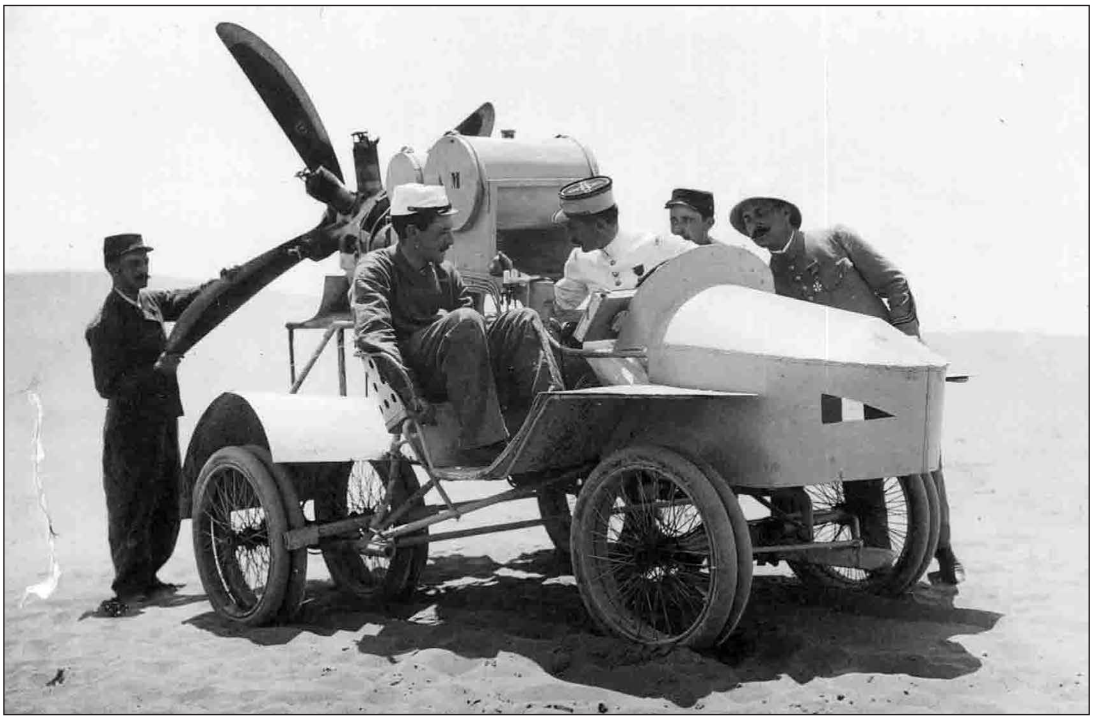
This flight had last twenty-five days and had covered 2,870 kms. Of the five Henri Farman HF.20s, which had originally set out, only numbers 98 and 99 survived, and they needed a complete overhaul before they could fly again. Of the two new aeroplanes which had joined the expedition at Wajda, only no. 67 reached al-Kheiter. Five of the eight machines which took part in the expedition had been written off. Perhaps in recognition of reality, and of the impossibility of real deep desert operations with existing equipment, the Sahara squadron based at Manouba was renamed Squadron VHF Tunis. Tunis also replaced Biskra as the main centre of French military aviation in this part of North Africa.

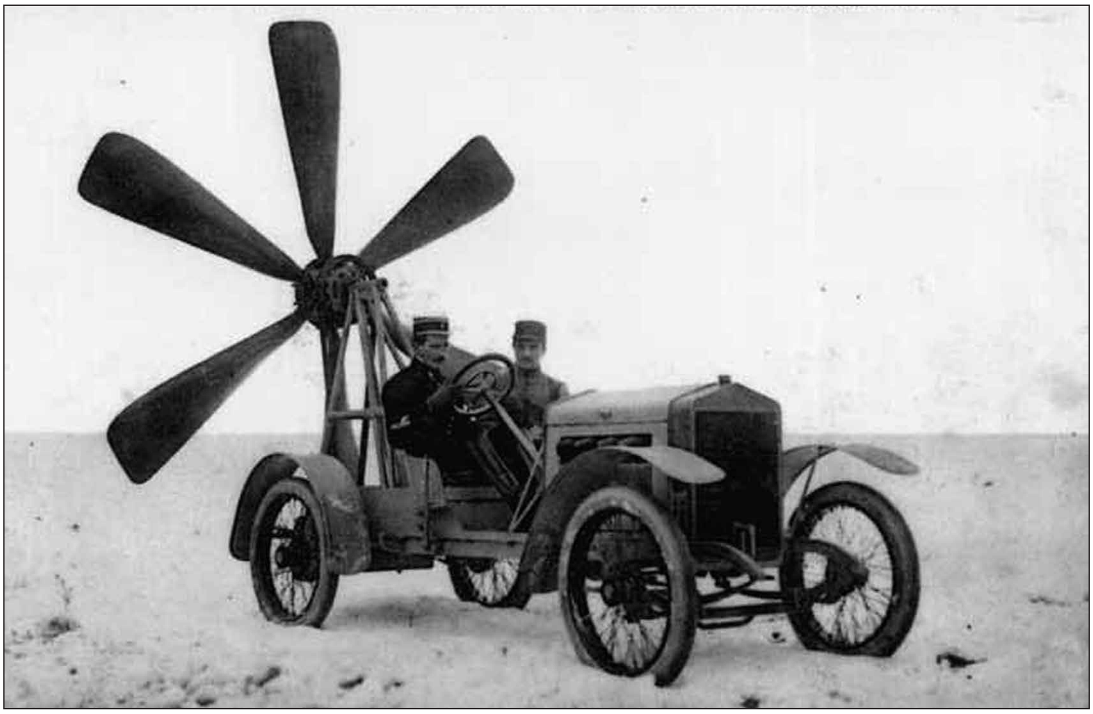
The French continued to enjoy success in Morocco during the first half of 1914, partly due to the arrival of some new machines in eastern Morocco. Equally significantly, the French aeroplanes made greater use of aerial bombs designed by the Danish engineer, Haasen. Rather than being a modified version of an existing missile, this bomb was specifically designed to be dropped from the air; in this case from racks attached to the side of the fuselage of a Blériot. Such bombing was also carried out in tactical coordination with French Army columns as they pushed into hostile territory to “pacify” the local populations.

The first of these operations was undertaken by a column commanded by Gen. Gouraud which set off in April 1914 to seize control of Taza. Despite poor downwards visibility from the Blériots, their bombing was so effective that Gen. Gouraud sent a special telegram of thanks to Lt. La Morlais and requested more such missions. In practice, the aeroplanes could fly no more than two to three hours per day and could carry no more than four to five bombs weighing about 3kgs. The attitude of officers on the ground had nevertheless changed and the latter were now eager to have active air support, not just aerial reconnaissance. Meanwhile, Lt. La Morlais experimented with more effective methods of aerial photography while his colleague Lt. Van den Vaero was more interested in how wireless telegraphy could be used to communicate between an aeroplane and troops on the ground. Given the bulky wireless equipment of the day, it was hardly surprising that La Morlais joked that Van den Vaero had been quite sane before he landed in Morocco, but had now been affected by the African sun.

There were also losses. On 5 April 1914 Capt. Hervé, head of the aviation centre in Casablanca since August 1913, and his mechanic, Corporal Rocland, were both killed by dissidents when they had to land in what was thought to be secure territory between Casablanca and Fez. Furthermore, the valuable camera which they were carrying, fell into enemy hands. Then on 4 May Lt. Sainte-Laguë was killed when his Blériot crashed on take-off. Twelve days later another pilot and his mechanic were lucky to escape unharmed when their aeroplane was smashed. Gen. Lyautey now ordered his airmen to act with greater caution because such losses were undermining army morale.

In the deep Sahara Desert to the south, Italian and French aggression between 1911 to 1913 had led to an upsurge of support for the Sanussi movement amongst many desert tribes, both Arab and Berber. Nevertheless, by 1914 French forces had advanced relentlessly and, even without air support, had driven Sanussi forces and their supporters back into the nominally Italian territory of Libya.


One of the two propeller powered vehicles designed by Lt. Lafargue for desert transport. Powered by a 50 hp Gnôme rotary engine taken from a scrapped Farman aircraft it was called the *Sauterelle* (Grasshopper) and achieved a maximum speed of 60 kph. (Pierre Jarrige collection)


The *Aerosable* was the second of Lt. Lafargue's propeller driven vehicles designed for cross-desert transport. It was essentially a modified Brasier car whose 60 hp Clerget engine turned a six-bladed propeller. (Pierre Jarrige collection)

Elsewhere in the Sahara Émile Dewoitine, the future aircraft designer, had joined forces with Corporal Cros and hot-air balloonists Delauney and Mourier, to construct the first of two strange "sand-skimming" vehicles at Biskra – apparently in their spare time. The first was based upon a design concept by Lt. Lafargue, intended to provide speedy land transport across the desert. It had a four-bladed propeller directly powered by a 50 hp Gnôme rotary engine taken from a scrapped Farman aircraft. Assisted by Corporal Cros and two French Army Engineer sappers, Delaunay and Louis Mourier, they produced a tubular steel frame suspended by three sets of springs which provided the independent suspension necessary when travelling over rough terrain. There were three axles, each with twin aircraft wheels. Weighing 350kg, it appeared to cover sandy terrain in a series of leaps without getting bogged down and was, perhaps inevitably, soon called the *Sauterelle* or Grasshopper. Unfortunately it was difficult to stop as the engine could not be idled and there were no brakes, the driver having to cut the engine while the passengers used their feet to slow the machine down. Nevertheless the *Sauterelle* achieved a maximum speed of 60 kph. The results were encouraging enough for Lt. Lafargue to modify a Brasier car whose 60 hp Clerget engine turned a six-bladed propeller. This slightly less terrifying machine was called the *Aerosable* and was able to travel between Biskra and Tuqurt at an average speed of 50 kmh. Indeed General Bailloud himself travelled aboard the *Aerosable* for about fifty kilometres and was pictured doing so on the front page of the French news magazine *Le Petit Journal* of Sunday 5 January 1913. However, the magazine wrongly identified the machine as the *Sauterelle* while the artist also included a number of Arabs on startled horses. The *Aerosable* was still in use in 1914, when it was driven between Tuqurt, Warqlah and al-Wad. Encouraged by these successes, Lafargue continue to study the possibility of replacing the wheels with a wooden hull or sled-like structure which could slide across the surface of the vast Saharan *shotts* or dried up salt pans. However, nothing apparently came of this concept.

5

SPANIARDS OVER THE RIF (1909-1914)

In 1917 Lieutenant Charles C. Turner RNVR noted in his book, *Aircraft of Today*, that in northern Morocco in 1911 Spanish pilots "did some very useful work with great courage and at some loss". This compliment by a British naval pilot was inaccurate as Spanish aeroplanes did not operate in northern Morocco until 1913. However, Turner did acknowledge what the flying men of a neutral country had done in a little-known conflict in a little-known land prior to the cataclysm of 1914. Indeed the Spaniards had faced significantly greater difficulties than their unofficial French allies had faced elsewhere in Morocco.

The Spanish presence in northern Morocco continues to this day and is generally considered to have had its origins when the Spaniards captured Melilla in 1497. In reality, states which had their main power base in the Iberian Peninsula, had at various times controlled parts of North Africa for millennia. The same was, of course, true of states which had their main centre of power in North African but had also ruled extensive territories in what are now Spain and Portugal. At the time when Spain seized Melilla, Ceuta was already Portuguese but this enclave was ceded to Spain in 1668. In 1859 the Moroccan Sultan attacked these Spanish enclaves but was defeated, resulting in a treaty which handed over another small amount of territory to Spain. Thus, by the late 19th century, the kingdom of Spain held Melilla, the city Ceuta, the Chafarinas Islands, the island of Al Hoceima and the rock of Vélez de la Gomera. The latter was itself an island until a huge storm in 1934 created a spit of sand linking it to the mainland.

Following Spanish defeats at the hands of the USA in the war of 1898, Spain's confidence and prestige plummeted, along with its finances. The loss of what remained of the Spanish Empire in the Americas also brutally demonstrated that Spain was no longer a great power. On the other hand, economic growth during the early years of the 20th century enabled Spain to revive its colonial ambitions closer to home, in North Africa. Various crises in Morocco seemed to open up new opportunities, with a series of tribal rebellions breaking out against the Moroccan Sultan Abd al-Aziz (ruled 1894-1908), accompanied by several pretenders attempting to seize the throne.

One of these rebels was known as El Rogui, or as "Bou Hmara" which meant "father of the female donkey". As unofficial Sultan of the Rif, the rugged mountains of northern Morocco, he established a local court not far from the Spanish enclave of Melilla in 1902. After El Rogui defeated an attack by the recognised Moroccan Sultan's army, his prestige grew which in turn attracted more local tribes to El Rogui's cause. However, the increasing anarchy in Morocco led Spain and France to agree in 1902 to divide Morocco into mutual zones of influence. As yet no action was taken to impose protectorates but in the meantime the Spanish coastal enclave of Melilla became a refuge for Moroccan troops and supporters of the internationally recognised Sultan Abd al-Aziz of Fez who had again been defeated by El Rogui in 1903. Like it or not, Spain was now in the firing line between El Rogui and the Sultan.

Spain remained reluctant to act, fearing to upset the French or, indeed, the British in Gibraltar. In 1904 Spain and France finally agreed on the dividing lines between their zones of influence while the British made it clear that they would prefer a weak Spain to dominate the southern shores of the straits rather than a strong France. Furthermore the British insisted that any Spanish occupied coast must remain unfortified.

Berber tribesmen look at the observation balloon named *Reina Victoria*. This was one of two raised over the Spanish enclave of Melilla on the northern coast of Morocco in 1909, during fighting against hostile tribesmen led by El Rogui, otherwise known as Bou Hmara which literally meant "father of the female donkey" but might better be translated as "he of the female donkey".

No reference was, of course, made to the opinions of the Moroccan people, but El Rogui remained in the picture, pressing on areas loyal to Sultan Abd al-Aziz. He also purchased weapons from a French trading post set up within the anticipated Spanish Protectorate and, in February 1906, actually receiving direct help from the French Navy which stopped one of the Sultan's few warships bombarding a position held by El Rogui's supporters. Madrid finally accepted the need to take military action to secure the prosperity of its own existing coastal enclaves. France, increasingly concerned that anarchy in Morocco would spill over into French-ruled Algeria, persuaded the interested powers to attend an international conference in Algeciras in southern Spain. They agreed that, while the Sultan's formal sovereignty would be recognised, Morocco would be divided into Spanish Protectorates in the far north and far south. The latter was to lie between the existing Spanish Western Sahara and the Spanish coastal enclave of Infi. Meanwhile, a larger French Protectorate would be imposed upon more prosperous, urbanized and culturally significant central Morocco; this arrangement being formalised in 1912, by which time a new Sultan, Abd al-Hafiz, had been established in Morocco, though his reign was also now reaching its end.

Prior to that, a troublesome French trading post on the northern coast of Morocco had been closed down in 1907 and a year later Spanish forces occupied Ras Kebdana (Ras al-Ma'a or Cabo de

Agua) close to the Algerian frontier. This was done on the pretext of protecting the local inhabitants from El Rogui's threats. In fact, some of El Rogui's followers had recently plundered a Spanish ship. This in turn was followed by some northern Moroccan tribes in the Rif mountains turning against El Rogui and defeating him. Fearing that French forces would seize this opportunity to encroach on the nominal Spanish Protectorate, Spain sent troops who took control of a small amount of territory but also suffered significant casualties.

The group of Spanish pilots and senior officers on the right, in front of a Henri Farman Type 1911, includes Colonel Pedro Vives Vich and Captain Alfredo Kindelán. The photograph was taken at Spain's first and most important aerodrome of Cuatro Vientos outside Madrid, and was published in the magazine *Ilustracion Espanola y Americana* on 15 April 1911.

These events stiffened Spain's fragile prestige but also showed that a more extensive Spanish occupation would be neither easy nor cheap. Like the Italians, the Spaniards recognised their own relative military weakness when compared with Britain, France and Germany. Consequently, Spanish leaders were more inclined to experiment and to adopt new military technologies in the hope of strengthening their armed forces. With this in view the Spanish Army Military Aerostatics Service, established in 1896 and based at Guadalajara, built Spain's first airship in 1906. Named the *España*, it proved to be a notable success, making many tests and publicity flights.

Three years later the Spanish Army set up a separate air service, while Colonel Pedro Vives Vich and Captain Alfredo Kindelán visited a number of European countries to study the suitability of airships and aeroplanes for Spanish use. This new service was formally recognised by a Royal Order on 2 April 1910, which decreed the establishment of the *Escuela Nacional de Aviación* (National Aviation School) based at an aerodrome outside Getafe near Madrid. Initially this National Aviation School was a civilian establishment, but was militarised and renamed the *Aeronáutica Española* while Colonel Pedro Vives became director of the *Aeronáutica Militar*, the Military Aeronautics unit of the Spanish Army. Captain Alfredo Kindelán meanwhile became *Jefe de Aviación* or Chief of Aviation.

In practical terms, however, the birth of what became the Spanish Air Force took place the following year when, in February 1911, a new aerodrome was created at Cuatro Vientos, near Madrid. Its first aircraft were Henri Farmans, plus the airship *España.* Almost exactly two years later the new service was split into aeroplane and balloon sections. The earlier Aeronautical Corps of Engineers had already used kite balloons for observation in Morocco in 1909 when two, named *Reina Victoria* (King Alfonso XIII of Spain' s wife Victoria Eugenie of Battenberg) and *Uranus*, were sent with their crews to Melilla during fighting against El Rogui's followers. This unit was commanded by Captain Gordejuela, with Captain Herrera Linares and lieutenants Fernandez Mulero, Barrón, Pou and Ortiz-Echagüe. They had left Madrid on 28 July 1909 along with a doctor, a veterinarian, five sergeants, and one hundred and two soldiers, plus 120 mules and horses.

Uranus made its first ascent on 3 August to observe enemy forces outside Melilla. Operations continued until the end of this little-known campaign in late November 1909. They were judged to have provided significant help to Spanish forces who were, in most other respects, still poorly equipped with what remained from the disastrous Spanish-American War of 1898. At the end of this conflict the Moroccan government also allowed Spain to create a local police force of northern Moroccan tribal warriors under Spanish officers, on condition that Spain evacuate its troops once this new police force was operational. It did not, and the increasing Spanish presence in northern Morocco made a clash with the tribes of the Rif Mountains virtually inevitable. In anticipation of such a clash, the Spanish garrison in Melilla was increased to 50,000 men.

Spain was not directly involved in the Agadir Crisis of April 1911 and the relative peace which now characterised northern Morocco would endure until August that year. Even the Spanish occupation of Qasr al-Kabir (Alcazarquivir), south of Ceuta, on 8 June had been achieved peacefully. The French complained, but they were too busy elsewhere to do anything about this Spanish move. Then, in August 1911, Berber tribes under a resistance leader named Tahrir al-Shafir Muhammad Amziyan, otherwise known as El Mizzian, clashed with Spanish troops. The result was a vicious little conflict known as the Mizzian Revolt which lasted until May 1912 when El Mizzian was killed in a skirmish. During the Mizzian Revolt the Spaniards again used observation balloons but the Spanish Army's new aeroplane section was not yet in a position to take an active role.

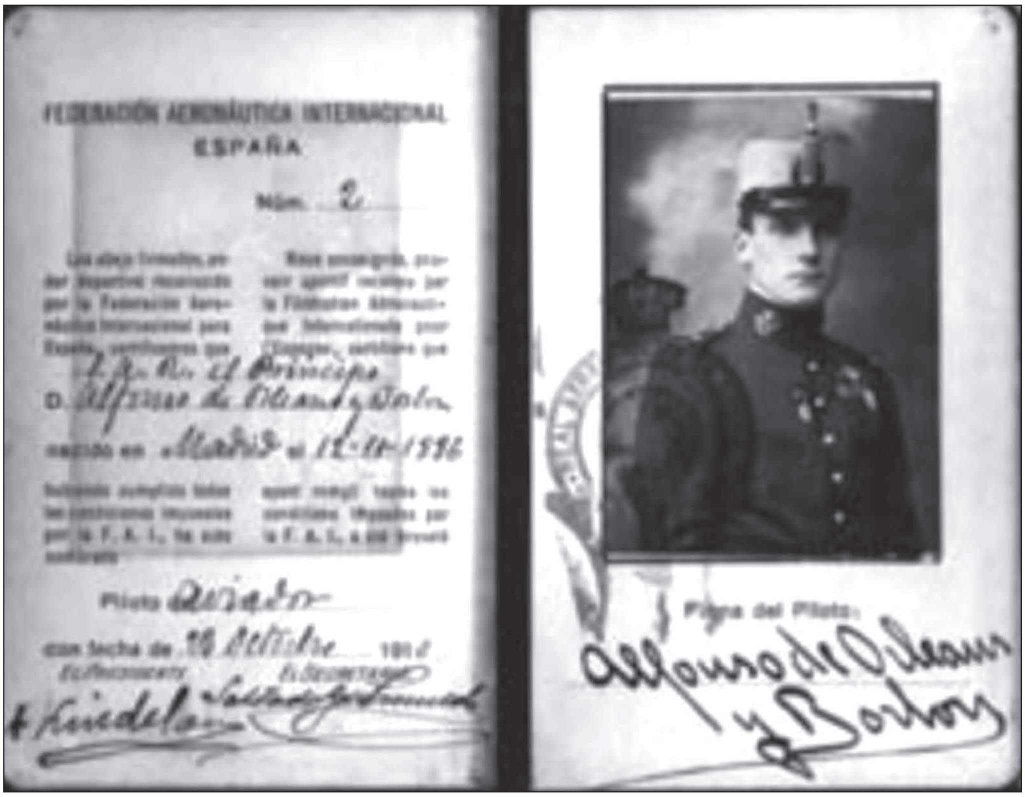
On 27 November 1912, France and Spain finally agreed on a frontier between their respective protectorates, but the Spanish now had to pacify the territory allocated to them. The lessons of previous campaigns, and of the recent Mizzian Revolt, persuaded the Spanish government to opt for "peaceful penetration" rather than aggressive military campaigns. They therefore only occupied a specific area after the local leadership had agreed to accept a Spanish presence. This they did while continuing to acknowledge the civil and religious authority of the Moroccan Sultan in Fez. Unfortunately such an arrangement did not prove possible in several areas where the Berber tribes recognised neither the Sultan nor the Spanish. Nevertheless the Spaniards did take control of the main regional town of Titwan which became the capital of their Protectorate. French Gen. Lyautey

The air unit arriving at what became Sania Ramel aerodrome outside Titwan (Tetuan), in the newly established Spanish protectorate in northern Morocco, in October 1913. The squadron's equipment also included the De Dion-Bouton lorry on the right.

arrived shortly afterwards to discuss coordination between French and Spanish forces.

Nevertheless, Spanish actions almost immediately provoked an uprising under a local leader named Ahmad al-Raisuni. This time Spain was somewhat better prepared and High Commissioner General Jose Maria Vega launched a series of operations to subdue those Spain and Sultan Yusuf both condemned as "rebels". Three observation balloons were sent to Morocco, named the *Saturn, Neptune* and *Sirius*, commanded by Captain Jimenez Millas. Colonel Pedro Vives Vich, Director of Spanish Military Aeronautics, had already visited Titwan in August and after a careful study of the region he selected a location for the first airbase in the Spanish Protectorate. This would later become Titwan's Sania Ramel aerodrome.

Located next to a small river on the only flat ground available and large enough for an airfield, it lay within two and a half kms from the city of Titwan. Unfortunately, it also lay within gunshot of any hostile units on the other side of the river. The Spanish plan was to gradually expand control from their three secure locations of al-Arash, Ceuta and Melilla. In each of these places, the military command would be supported by its own small aviation unit. These were to be based at aerodromes outside Sania Ramel (Titwan), Arcila and Ziliran. The latter would eventually play a particularly prominent role, being located about 24 kms from the vital Spanish coastal enclave and military base of Melilla.

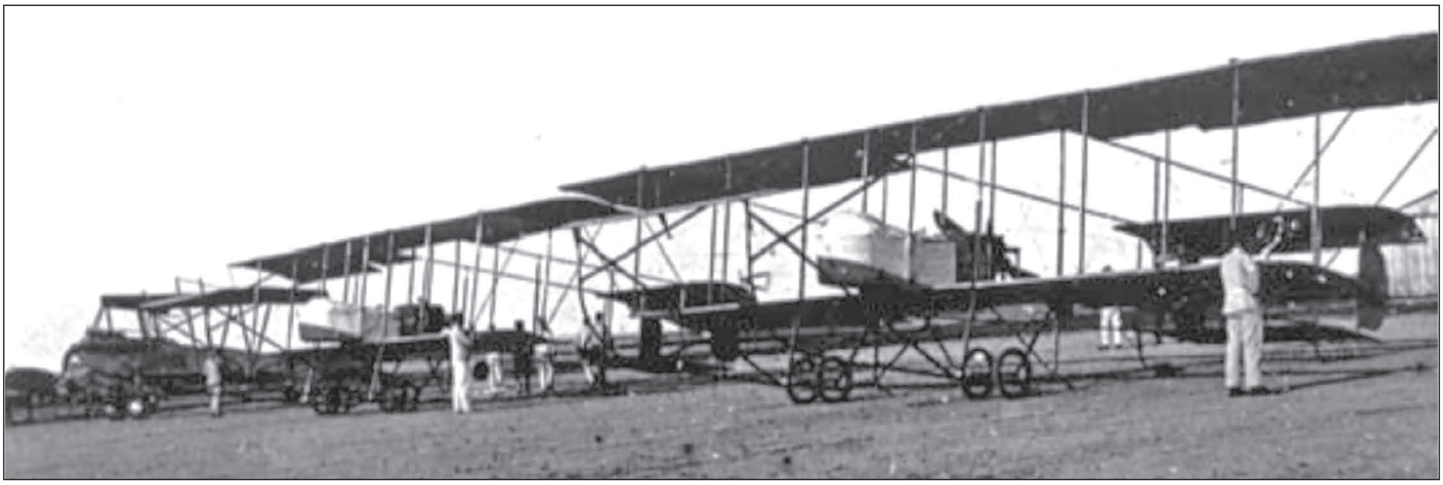


FEDERACIÓN AERONÁUTICA INTERNACIONAL
ESPAÑA
Núm. 2

Firma del Piloto:
Alfonso de Orleans
y Borbón

The second Spaniard to qualify as a pilot was none other than the *Infante* or heir to the Spanish throne, Don Alfonso de Orleans y Borbón, the Duke of Galicia.

At the Flying School of Cuatro Vientos in Spain, meanwhile, the first flying students to receive their brevets on Nieuport II N and Nieuport II C monoplanes were Quartermaster 1st Officer Alonso Ilera (in November 1912) and Lieutenant of Engineers Olivié (in December 1912). In total, ten Nieuport pilots were trained at Cuatro Vientos over a period of three years and almost all these *monoplanistas* would subsequently serve in the Zeluán Squadron in Morocco.



A line-up of some of Spain's first military aeroplanes at Cuatro Vientos, in September 1913, including two French-built Maurice Farman MF 7 Longhorns and an Austrian built Löhner B.1 Pfeilfliger.

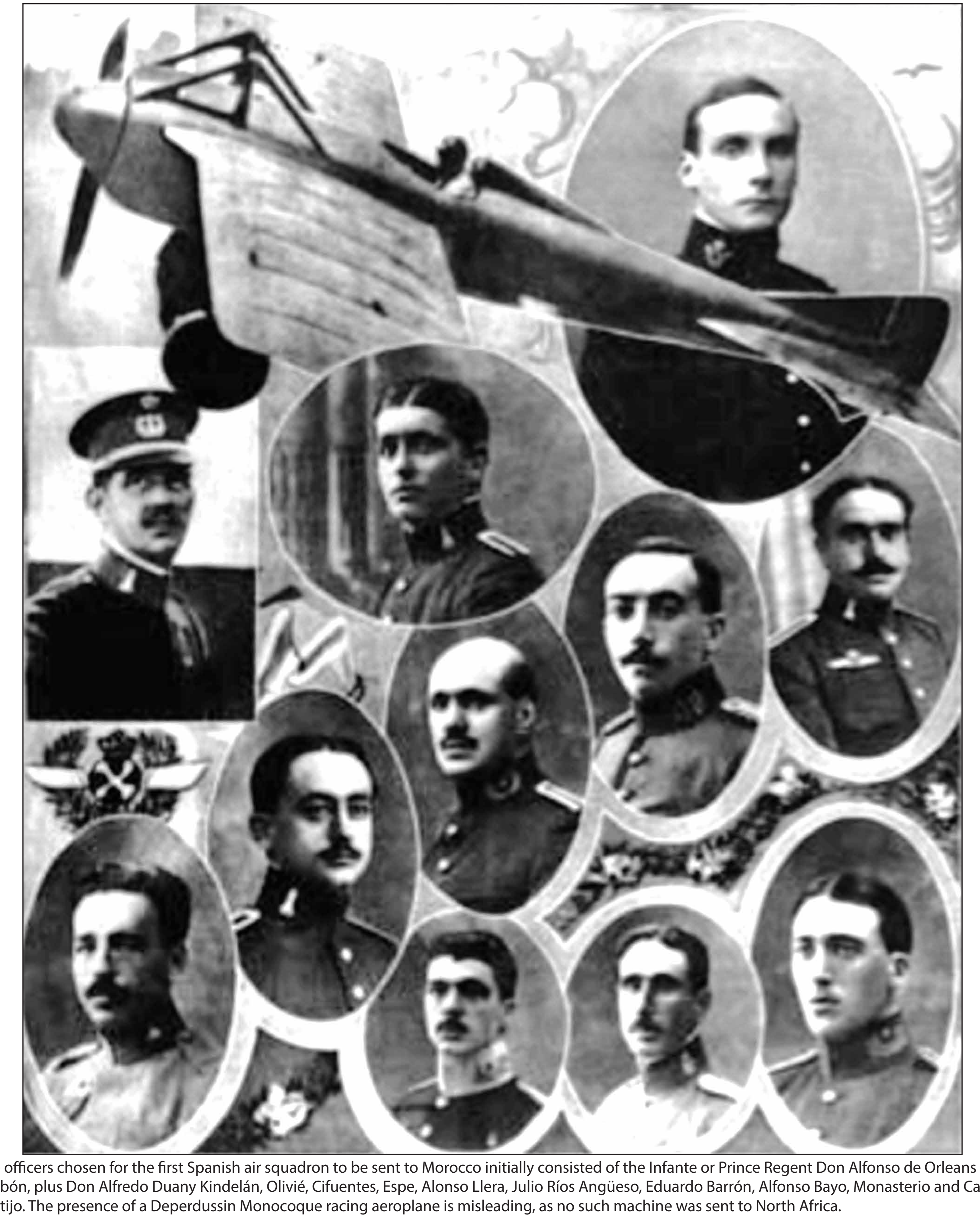
Captain Alfredo Kindelán explaining the workings of a Maurice Farman MF 7 Longhorn aeroplane to Spanish soldiers in northern Morocco.

A Spanish Maurice Farman MF 7 in Morocco, probably at the aerodrome outside Titwan (Tetuan), which was established to support Spanish troops campaigning around al-Arash (Larache). The area consisted of particularly rugged mountains.

Captain Eduardo Barrón was meanwhile sent to Austria to look at Lohner B.1 *Pfeil* (Arrow) aeroplanes. As a result the Spanish government ordered five of these machines on 25 June 1913. Unlike the standard Lohner B.1 used by the Austro-Hungarian Army, these machines had what became known as the “Spanish wing”. In this version the two halves of the upper wing were joined at the centre line where they were supported by inverted V-struts, thus eliminating the older version’s centre-section cabane. The original rounded ailerons were replaced by ailerons with a rectangular shape, while the wings could also be folded down for storage. These five Lohner B.1s were delivered to Cuatro Vientos, along with one additional machine that had originally been intended for Germany, by the Lohner Company’s technical manager, Karl Illner in October 1913. Subsequently the structural weakness of the old Lohner wings meant that Austro-Hungarian B-1s were given new “Spanish wings”.

Barrón also studied Lohner’s on-going experiments with targeting and bomb-sights which enabled him to write a report for his superiors in Madrid. Here the Minister of War now mobilised the country’s new Aeronautical Service. On 18 October 1913, he ordered his senior officers to get the available squadron and its reserves ready to go to Morocco as soon as possible under the command of Engineer Captain Don Alfredo Duany Kindelán. They would be equipped with four Maurice Farman MF.7s, four Lohner B.1 Pfeil or “Arrow” biplanes, and three Gnôme powered Nieuport VI.M (Military version) monoplanes. These machines were sent to Algeciras by railway on 23 October, then to Ceuta aboard the ship *Almirante Lobo* before moving to Sania Ramel outside Titwan.

The squadron’s pilots were Engineer Captain Eduardo Barrón, Staff Captain Alfonso Bayo, Infantry Lieutenant His Highness the Infante (heir to the Spanish throne) Don Alfonso de Orleans y Borbón the Duke of Galicia, Engineer Lieutenant Jenaro Olivié, Infantry Lieutenant Julio Ríos Angüeso, Engineer Lieutenant Antonio Espín, Infantry Lieutenant Luis Moreno Abella, Quartermaster Lieutenant Carlos Alonso Llera, and Medical Lieutenant Carlos Cortijo who also served as the squadron’s doctor. The observers were Staff Captain Mayor Victoriano Castrodeza, Captain Carlos Cifuentes, Artillery Captain Manuel Barreiro, Artillery Lieutenant Manuel Ruiz de Arcante, Marine Infantry Lieutenant Manuel O`Felar y Correoso and Naval Ensign Pablo Mateo Sagasta. In addition Maestro de Taller (Workshops Master) Quesada Guisasola would sometimes fly as an observer. The only civilian in this unit was Leopoldo Alonso, the squadron photographer, who would subsequently become Spain’s leading pioneer in aerial photography. These men were supported by two sergeants and fifty-five other soldiers. A second aerodrome was then established in Arcila to support the troops at



The officers chosen for the first Spanish air squadron to be sent to Morocco initially consisted of the Infante or Prince Regent Don Alfonso de Orleans y Borbón, plus Don Alfredo Duany Kindelán, Olivié, Cifuentes, Espe, Alonso Llera, Julio Ríos Angüeso, Eduardo Barrón, Alfonso Bayo, Monasterio and Carlos Cortijo. The presence of a Deperdussin Monocoque racing aeroplane is misleading, as no such machine was sent to North Africa.

al-Arash, several pilots and the Maurice Farman aeroplanes being established there under Captain Bayo.

Despite its important work, this unit never received the appreciation it deserved from commanders on the ground. In fact, the Spanish air unit in Morocco proved highly effective in the little known Rif War. Although they did not notch up many pioneering firsts, the Spaniards could claim one; namely the systematic bombing of enemy targets rather than the occasional "as and when needed" bombing carried out by the Italians and French. Having arrived between 24 October and 2 November, the men spent the next few days assembling their aeroplanes and establishing their aerodrome.

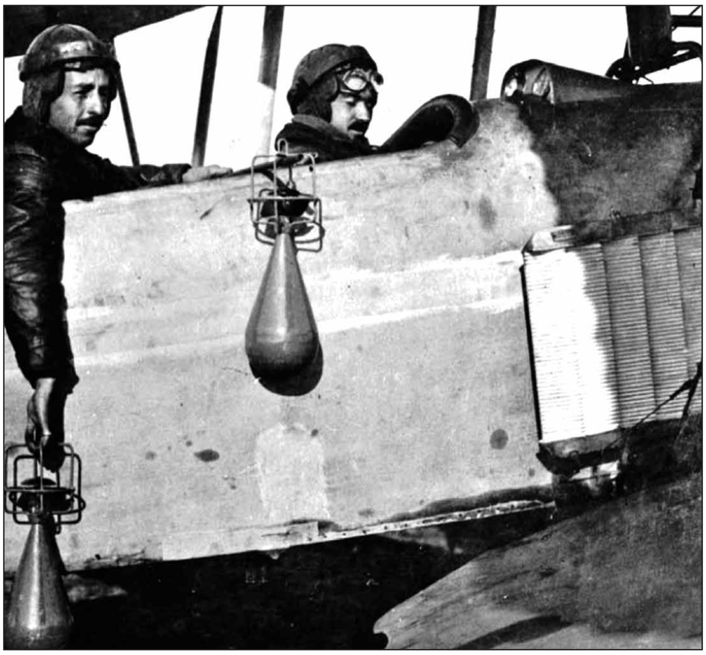
On 2 November Lieutenant Carlos Alonso Llera and observer Naval Ensign Pablo Mateo Sagasta made the first test flight in a Nieuport, a machine from which the pilot had already escaped unhurt following engine failure outside Madrid on 13 June 1913. Having entered the Spanish Staff Academy in 1896, serving in Cuba two years later and learning to fly in 1912, Carlos Alonso Llera became an instructor the following year and was eventually recognized as one of Spain's leading military pilots. This first Spanish powered flight in Morocco took off at nine minutes past five in the afternoon but only lasted eight minutes. A little while later, that same day, the Infante Lt. Don Alfonso and Capt. Kindelán took up a Lohner for an initial reconnaissance of nearby enemy-held territory. On 3 November five aeroplanes undertook a photographic reconnaissance, followed on the 5 by the first bombing mission, again in a Lohner B.1. The Austrian-built Lohner was one of the most advanced bombers of its day, having a real but rudimentary bombsight made in Germany in 1912. It also carried German Carbonit bombs weighing either 3.5 or 10 kg, over a hundred of these missiles having been purchased in Vienna.

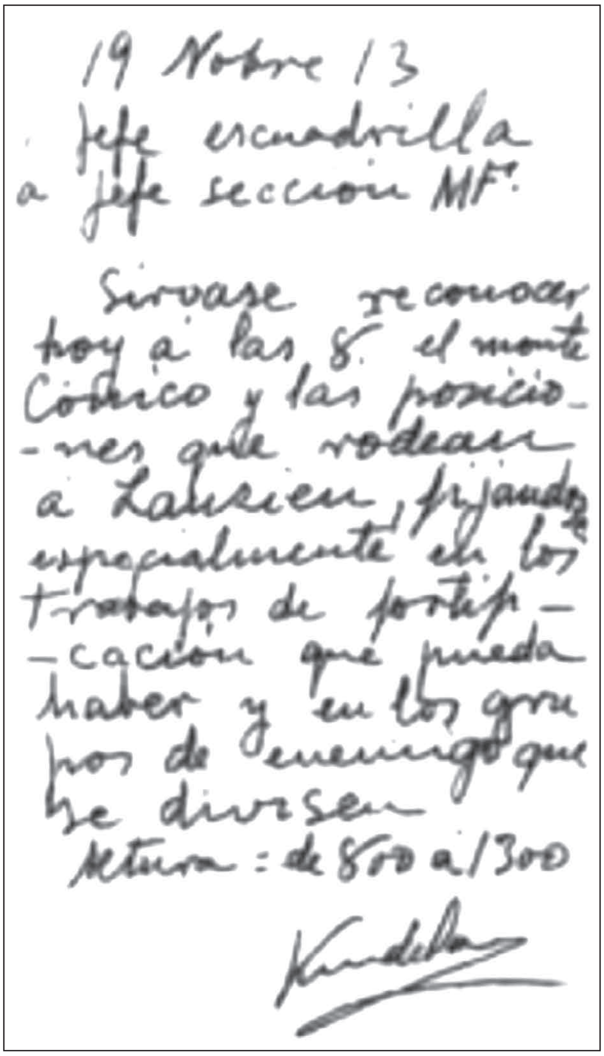
On 19 November one of the Maurice Farman MF 7s flew a reconnaissance mission over enemy position on and around the distinctively shaped "Conical Mountain", but both the pilot Lt. Angüeso and observer Capt. Barreiro were wounded by rifle fire from the ground. They would be decorated with the Distinguished Cross of San Fernando, the first to be awarded to members of Spain's Military Aviation. On the last day of November the subsidiary aerodrome at Arcila, to the west of Titwan also came into service with its three Maurice Farmans, three pilots and three observers.

The Spanish air units in northern Morocco were now fully operational and in December they initiated a bombing campaign which continued into 1913. They would be reinforced on 13 December by the arrival of three Morane-Saulnier Type GA (also called the G 14 because of its 14 metre wingspan) monoplanes. That same day a Maurice Farman undertook the first close support of Spanish troops who were fighting near Ben Karrix. This was followed on the 17 by the world's first really systematic bombing campaign, carried out by the Lohners and focussed upon enemy positions in the Ben Karrix area. By the end of the year Lt. Carlos Alonso Llera had logged 68 hours flying time over Morocco, 38 of which had been on operational missions.

Winter rains threatened to keep Spanish aeroplanes in Morocco on the ground during January 1914 but Suq al-Semis, the Haira Valley, Suq al-Tebr and Ben Karrix were photographed on the 8, 9 and 10 January, the photographic plates – some of them still wet

These photographs reportedly shows the first test flight by the first Spanish air unit in North Africa. It is an unmarked Nieuport IV-M flown by Lieutentant Carlos Alonso Llera with Naval Ensign Pablo Mateo Sagasta as his observer on 2 November 1913.


One of Spain's Löhner B.I Pfeilflieger or Arrow biplanes, showing how the 3.5 kg German manufactured Carbonit bombs were dropped by hand. The crew are Eduardo Barrón, with the bomb, and pilot Carlos Cifuentes.



19 Nobre 13
Jefe escuadrilla
a Jefe seccion MFª.

Sirvase reconocer
hoy a las 8. el monte
Cónico y las posicio-
-nes que rodean
a Laucien, fijando
especialmente en los
trabajos de fortifi-
-cación que pueda
haber y en los gru
pos de enemigo que
se divisen
Altura: de 800 a 1300

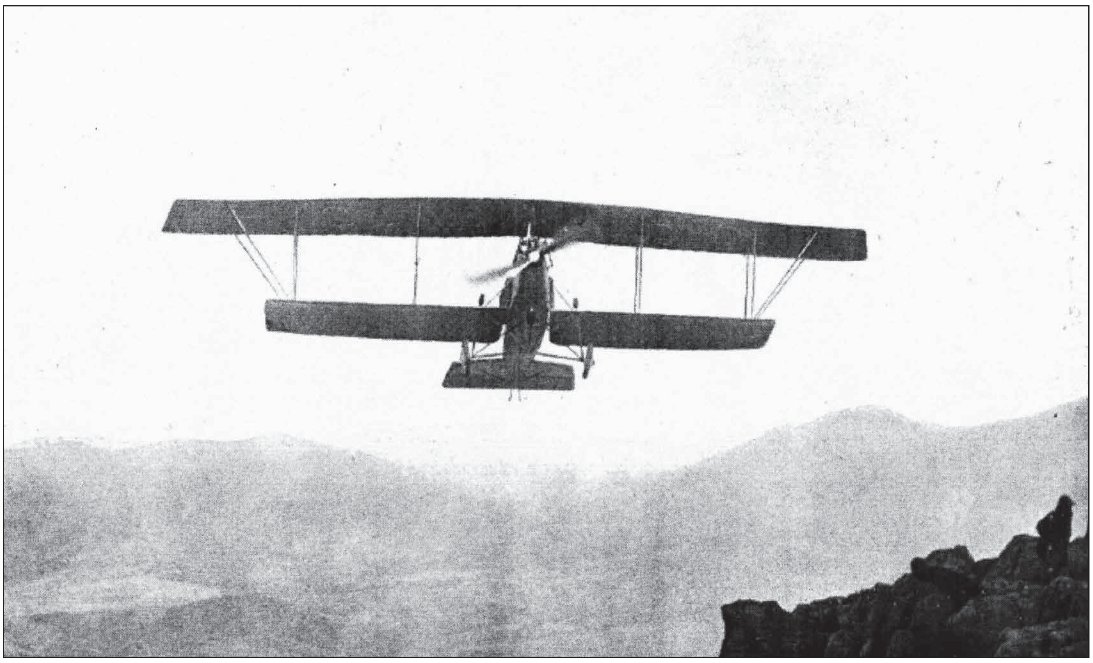
Kindelan

The letter from Don Alfredo Duany Kindelán, written on 19 November 1913, recommending that Lt. Angüeso and Capt. Barreiro be awarded the *Crus Real y Militar Orden de San Fernando* or Distinguished Cross of San Fernando for their courage while attacking enemy positions around the so-called "Conical Mountain" on that day.

Capt. Emilio Herrera Linares with the Nieuport IV M (no. 6) before making the first over the Straits of Gibralter from Titwan on 14 February 1914. He was accompanied by Lt. Ortiz Echagüe carrying a message from the Army Command in Morocco to King Alfonso XIII who was at the time in Seville. (Archivo Historia del Ejercity del Aire photograph)

from development – being rushed to the Army Staff HQ in Melilla. New aircrew also arrived, fresh from training outside Madrid. From then until August 1914 – when the start of the First World War changed everything, even for neutral Spain – Spanish flying units in Morocco maintained an air campaign in support of its sometimes hard pressed ground troops.

On 7 February three new, two-seater Nieuport VI-M monoplanes of a newly formed squadron arrived on the aerodrome at Ziliran, south of Melilla. Exactly a week later a Nieuport (No. 6) flown Capt. Herrera Linares and Lt. Ortiz Echagüe made the first air crossing of the Straits of Gibraltar while flying from Titwan to Seville. It carried a message from the Army Command in Morocco to King Alfonso XIII who was at the time in Seville. Meanwhile military operations, including bombing missions, continued in northern Morocco.



A dramatic, and perhaps composite, photograph of a Spanish Löhner B.I flying over the mountainous terrain of the Rif Mountains in northern Morocco. It appeared on the front cover of the magazine *Mundo Grafico* in December 1913.

The Nieuports proved particularly effective in support of the hard won conquest of a strategic area of high ground on 16 March. Otherwise March 1914 also saw little flying, though on the 27 one reconnaissance sortie spotted an enemy artillery piece. Flying increased in April with some bombing as well reconnaissance missions, and late that month the site of a new aerodrome was selected at Ziliran near Melilla. This became operational in May. From here the new squadron would fly from 16 May until it was temporarily dissolved late in August 1914 This Zeluán Squadron was commanded by Captain Emilio Herrera Linares, though under the overall authority of Captains Barrón and Kindelán based outside Titwan. It consisted of five pilots, Don Antonio Perez Nunez (also serving as the unit's doctor), Carlos Ilera Alonso Fernández (also serving as Quartermaster) and José Valencia, plus two observers, Luis Victoria and Gonzalo Feliciano Lopez Bacêlo. Their four 80 hp Le Rhône powered Nieuport VI-Ms were numbered 4, 5, 6 and 8. Having been brought to Melilla by ship, the Zeluán Squadron not only had to carry out the same sort of duties as their colleagues near Titwan, but also photographed and made sketch maps of mountainous areas which were as yet uncharted.

This low level activity continued in May and June, the first flight at Ziliran being made by Herrera on 23 May 1914, but almost nothing further was done because of a persistently strong west wind. After being reinforced later that month by a new pilot, Lt. Valencia, the Zeluán Squadron really got going in June. Its primary task was finding and photographing a previously unknown enemy force of "Rifs", as the dissidents were called, which seemed poised to attack Spanish positions. Bombing sorties were flown on 27 June and 15 July, the latter reportedly causing no casualties at all. In July and August the Spanish airmen also tested a new type of incendiary bomb, but with uncertain results. However, most of the Zeluán Squadron's missions were for reconnaissance or photography which proved much more useful. Indeed the aged General Weyler and General Marine, who visited the aerodrome on 26 July, admitted to being astonished by what the Spanish airmen had achieved.

6

THE FIRST WORLD WAR IN ARAB LANDS (1914-1918)

During the First World War many Middle Eastern combatants primarily saw themselves as defending Islam against Christian domination; the spread of concepts of Arab Nationalism beyond a few major cities being a very recent phenomenon. Even in the Hijaz province of Arabia, where the Sharif of Mecca would eventually declare what is known as the Arab Revolt, a growing desire for autonomy had yet to become a call for independence from the Ottoman Empire. Beyond the Arabian Peninsula, there was very little sense of what would now be recognised as a specifically Arab identity. Instead local, tribal, religious or dynastic motivations remained dominant.

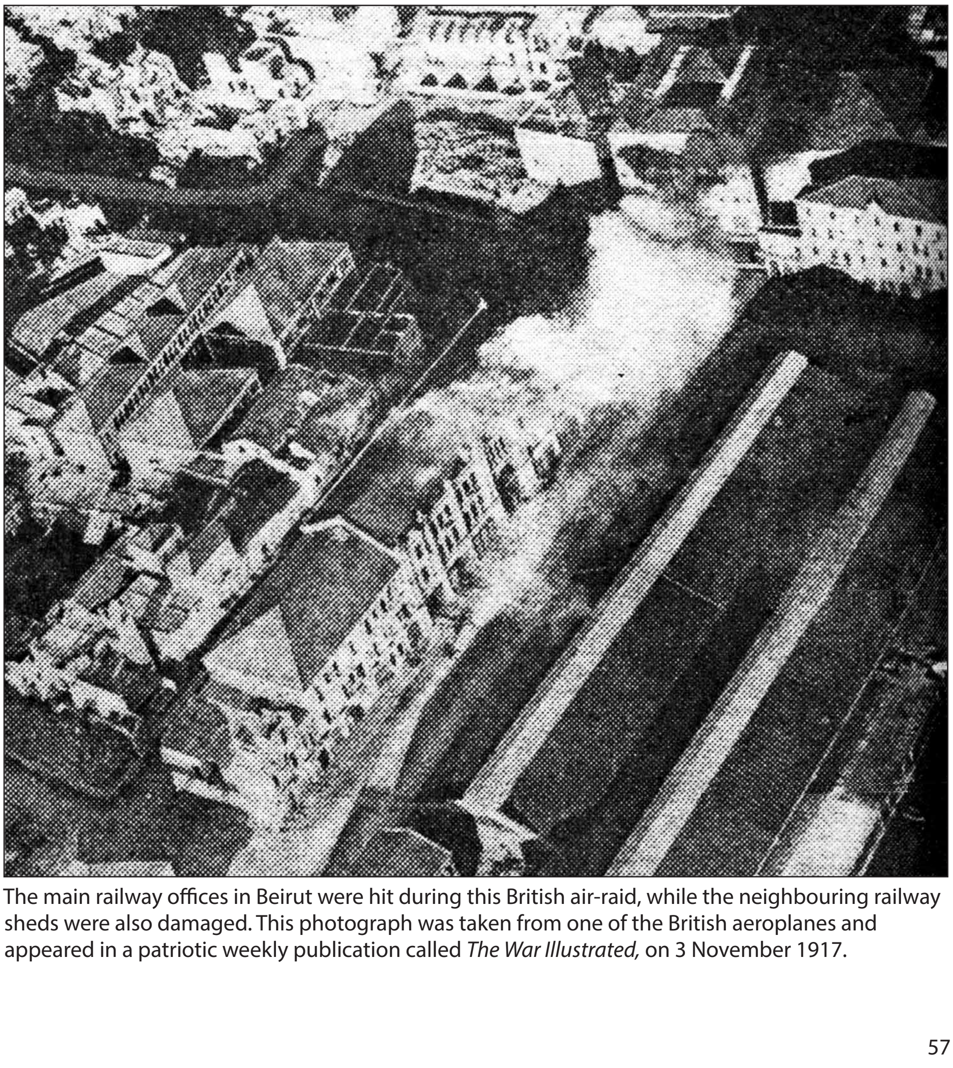
In Egypt, for example, nationalism was a growing phenomenon, but it was an Egyptian rather than an Arab nationalism. This had become more emphatic in the years immediately prior to the First World War, but was also complicated by the fact that many in Egypt's political, cultural and economic elites were losing faith in their own ruler, the Khedive Abbas II Hilmy, whom the British occupation authorities had persistently humiliated year after year.

The outbreak of the First World War immediately focussed Allied attention upon the vital strategic importance of Egypt and its Suez Canal. This concern was strengthened when the Ottoman Empire entered the conflict on Germany's side and almost immediately sent troops to threaten the Suez Canal. Here it should be noted, however, that the presence of British and French troops, plus naval units, alongside and in the Suez Canal was illegal under international law. This was because the Canal area had been declared a neutral zone by an International Convention on 29 October 1888.

The Ottoman Navy attacked the Russian fleet without warning on 31 October 1914, seemingly without the agreement of the whole Ottoman government and the Ottoman Sultan Mehmed V. Russia refused to accept an apology from Constantinople and declared war on the Ottoman Empire the following day; this being followed by French and British declarations of war on 5 November. In response the Ottoman government somewhat belatedly declared war on these three powers on 11 November.

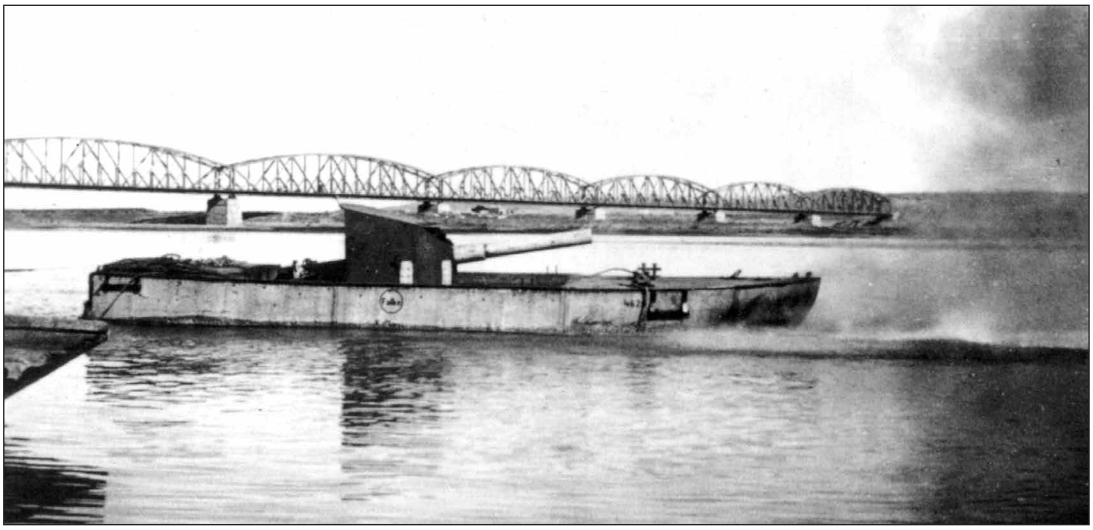
On the day that Britain declared war on the Ottoman Empire, Khedive Abbas Hilmy II of Egypt was actually visiting the Ottoman capital. In his absence the Egyptian Prime Minister and the Khedive's regent, Hussein Rushdi Pasha, accepted British demands that all communication with Britain's enemies be severed. They also agreed that Britain's armed forces had the right to exercise the "rights of war" over all Egyptian ports and territories. Furthermore, the British insisted that the absent Khedive Abbas Hilmy II be deposed and be replaced by his uncle, Hussein Kamil. The Arabic rather than Ottoman version of his name was Husain Kamal al-Din and he was regarded by the British as more amenable. He would now rule as the independent Sultan rather than autonomous Khedive of Egypt. Kamal al-Din Husain was also respected by the ordinary people of Egypt, especially by the *fallahin* or rural peasantry, who saw him as a tough and very moral man. The new Sultan of Egypt was nevertheless still under British domination and on 18 December 1914 Britain declared a formal protectorate over Egypt. This would last until 1922 and in practice the previously relatively relaxed British occupation became an iron grip.

The famous Lord Kitchener of Khartoum had been Britain's



The main railway offices in Beirut were hit during this British air-raid, while the neighbouring railway sheds were also damaged. This photograph was taken from one of the British aeroplanes and appeared in a patriotic weekly publication called *The War Illustrated,* on 3 November 1917.

A Rumpler C.IV from one of the German Paşa squadrons over an Ottoman Army supply convoy of camels in Syria or Palestine. Its markings show that the photograph was taken late in the war.



An Ottoman floating battery in action on the river Euphrates in Iraq. It was armed with a 105mm gun taken from the German Navy cruiser *Breslau*, renamed the *Midilli* in Ottoman service, in 1915. (Turkish Naval Museum photograph)

agent or representative in Cairo but, like Khedive Abbas Hilmy II, he was out of the country when Egypt was thrust into the front line of the Great War. Kitchener now became the British Secretary of State for War while his role in Egypt was taken over by Sir Frederick McMahon who had the new title of High Commissioner. McMahon would himself be replaced by Sir Reginald Wingate in 1916. The role of British High Commissioner was a far from easy one. The Egyptian government had initially hoped their country could remain neutral, but British control of Egypt meant that this was impossible. Although the British authorities seemed to take no account of what Egyptians felt, they were aware that at the start of the Great War there was widespread if muted sympathy for Britain's enemies. Above all, however, the great majority of the people just hated being involved in what they regarded as a conflict amongst foreigners, most of whom were infidels (non-Muslims).

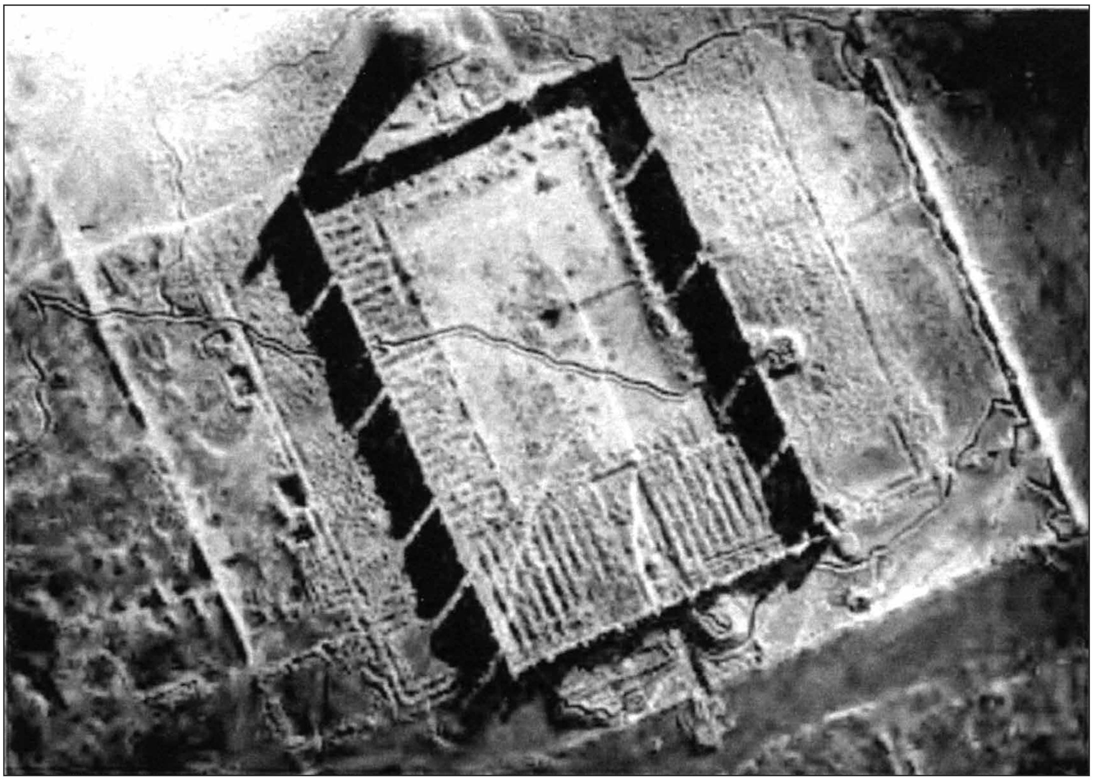
On the other hand, the Ottoman Sultan's proclamation of a worldwide *jihad,* in the expectation that Sunni Muslims would rise against his enemies and their own supposed oppressors, was a flop even in the Middle East and North Africa. With relatively few exceptions, Muslims outside the provinces actually controlled by the Ottoman Empire regarded the Ottoman Sultan's call as a political and military ploy with no real basis in Islamic *Shari'a* law. The recently deposed Egyptian Khedive Abbas II Hilmy nevertheless encouraged Çamal Pasha, the Ottoman governor and military commander in Syria, to believe that the Egyptians would rise up if an Ottoman Army reached the Suez Canal. At the very least, the Egyptian Army was expected to refuse to fight against any such Ottoman force. Abbas Hilmy had some justification for this belief because there was undoubtedly widespread admiration for the modernising and fiercely anti-colonial Young Turks who now ruled the Ottoman Empire. Nevertheless, this was counterbalanced by widespread anti-Turkish sentiment. Consequently Egypt would be characterised by an uneasy quiet during the early part the First World War.

On 9 October 1917 Sultan Husain Kamal al-Din of Egypt died and was succeeded by his brother Fu'ad I. The latter had, only three years earlier, been a considered as ruler of newly independent Albania, but had been passed over in a favour of a German Christian, Prince Vilhem Vidi, also known as Skanderbeg II. Egyptian nationalism remained quiescent but as Allied victory came to be seen as almost inevitable during 1918, and especially when President Woodrow Wilson of America proclaimed the principle of national self-determination, demands for Egyptian independence and representation at the forthcoming peace conferences increased.

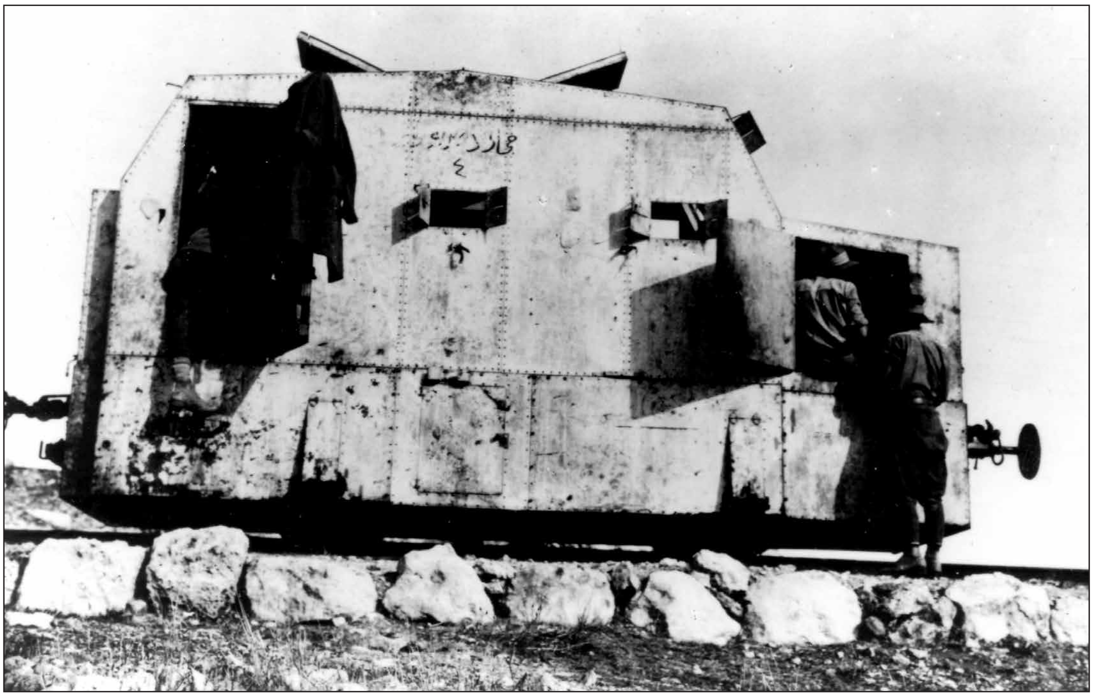
The situation within the Arab provinces of the Ottoman Empire also changed during the course of the First World War. By late November 1915 the deposed Khedive of Egypt, Abbas Hilmy II who was now in exile in Ottoman territory, reportedly used intermediaries to offer the British his leadership of the Arab tribes in Syria and parts of Arabia in a revolt against the Ottoman Sultan. Such double-dealing found no response in London. Meanwhile, in what are now Syria, Lebanon, Jordan, Palestine, Israel and parts of south-central Turkey, the majority of the non-Turkish population remained loyal to the Ottoman Sultan during the early part of the world conflict. These communities included both Sunni Muslim, Shi'a Muslim and Christian Arabs, as well as Kurds and others. In many cases they would remain loyal even after the forces of the Arab Revolt swept northwards from Arabia.

Similarly, the relatively densely populated provinces of what are now Iraq remained almost entirely loyal to their Ottoman rulers until almost the end of the First World War. A few tribesmen may have rallied to the British as early as 1915, but most had been enticed by the gold offered by the government of British India. It was only in 1918 that local peoples finally turned against a now clearly defeated Ottoman Army.

Within the Ottoman or nominally Ottoman provinces of the Arabian Peninsula it has been the "Arab Revolt" in the Hijaz, and the somewhat exaggerated role of "Lawrence of Arabia" which caught the public imagination. Elsewhere other events were taking place which some historians might consider of greater importance for the subsequent history of the Arab world. For example, central Arabia was supposedly Ottoman territory at the start of the First World War. Here the situation was fluid and complex, but immediately prior to the great conflict, these regions were divided between competing Rashid tribal chiefs and Abd al-Aziz Ibn Sa'ud of Riyadh. The latter also controlled the coastal province of Hasa on the Persian Gulf, which lay between the Qatar peninsula and British protected Kuwait.



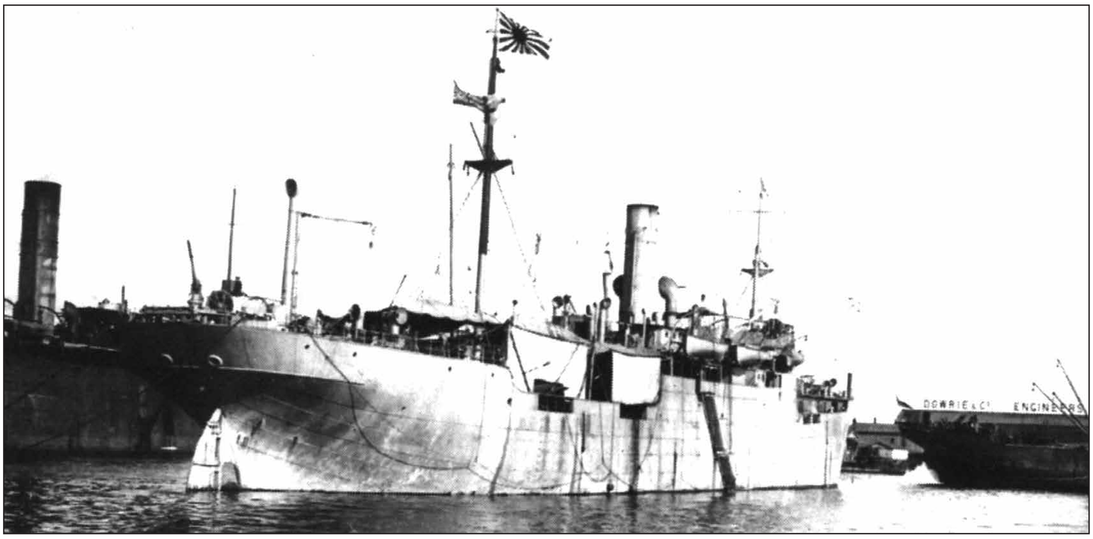
The huge but abandoned Great Mosque of Samarra in central Iraq was built for the Abbasid Caliph al-Mutawakkil in 848-851 AD. It was photographed from the air by Ottoman aircraft around 1916 and its famous spiral minaret can be seen at the top of the picture.



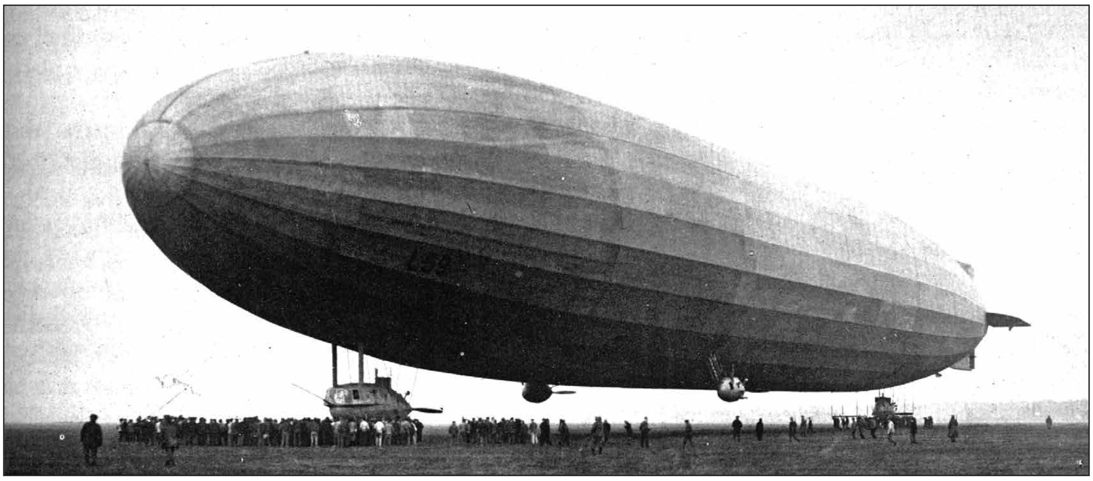
The tank-like armoured wagon which formed part of an Ottoman train on the Hijaz Railway, captured by Australian troops, probably in what is now Jordan.

Although Abd al-Aziz Ibn Sa'ud continued to recognise Ottoman suzerainty, the Ottomans supported his Rashid rivals until, in May 1914, Ibn Sa'ud signed a treaty which enabled him to become the Ottoman *wali* or governor of both Najd and Hasa. On 15 January 1915, while the Ottoman Empire was fully involved elsewhere in the First World War, Ibn Sa'ud suffered a significant defeat at the hands of the Rashids. This encouraged him to seek an alliance with the British and this was finally agreed in December 1915. Under its terms Britain recognised Abd al-Aziz Ibn Sa'ud as the independent ruler of Najd, Hasa and the other regions which he currently dominated. To further complicate matters, the British were already deeply committed to supporting another of Ibn Sa'ud's rivals, the Hashemite *Sharif* or autonomous ruler of the still Ottoman province of Hijaz. This area contained the Islamic Holy Cities of Mecca and Medina. Aware of such unfortunately typical double-dealing by the British Imperial authorities, Ibn Sa'ud maintained secret contact with the Ottoman authorities in Syria.

The Ottoman position in Yemen was strong, although in practice



The British Royal Navy seaplane tender HMS *Raven II* had been the German merchant ship *Rabenfels* before her seizure at the start of the Great War. Here she is seen at Port Said, flying a Japanese flag in honour of Japanese Rear Admiral Sato Kozo who was passing through the Suez Canal aboard the cruiser *Akashi* with the Japanese Navy's 10 and 11 Destroyer Squadrons on their way to Malta in April 1917.



The German Naval Zeppelin L59 at Yambol (Jamboli) in Bulgaria, during her epic flight to bring supplies to German forces under Governor Paul Von Lettow-Vorbeck who were still fighting British Imperial forces in what is now Tanzania in November 1917. In fact German resistance had by now virtually collapsed and, after reaching the Sudan, L59's commander, Kptlt. Ludwig Bockholt, was ordered to return. (Luftschiffbau Zeppelin photograph)

authority was shared with Imam Yahya whose powerbase consisted of the Shi'a population of the highlands. Most of the Ottoman garrisons were formed of Syrian Arab troops who would remain staunchly loyal to the Ottoman Empire throughout the Great War. Meanwhile the majority of the local inhabitants had no wish to replace the sometimes arbitrary but at least distant rule of the Sultan with that of the British who were already firmly established in Aden. Equally important was the fact that Imam Yahya would stand by his nominal Ottoman overlord through the conflict. Indeed the respected historian of Yemen, R.J. Gavin maintained that Imam Yahya almost regarded the Ottoman forces in Yemen as "his" troops during the First World War, especially when the amenable Mahmud Nadim Paşa was Ottoman governor. This he would be from 1913 until 1919 – several months after the end of the Great War – with only a short break in 1915.

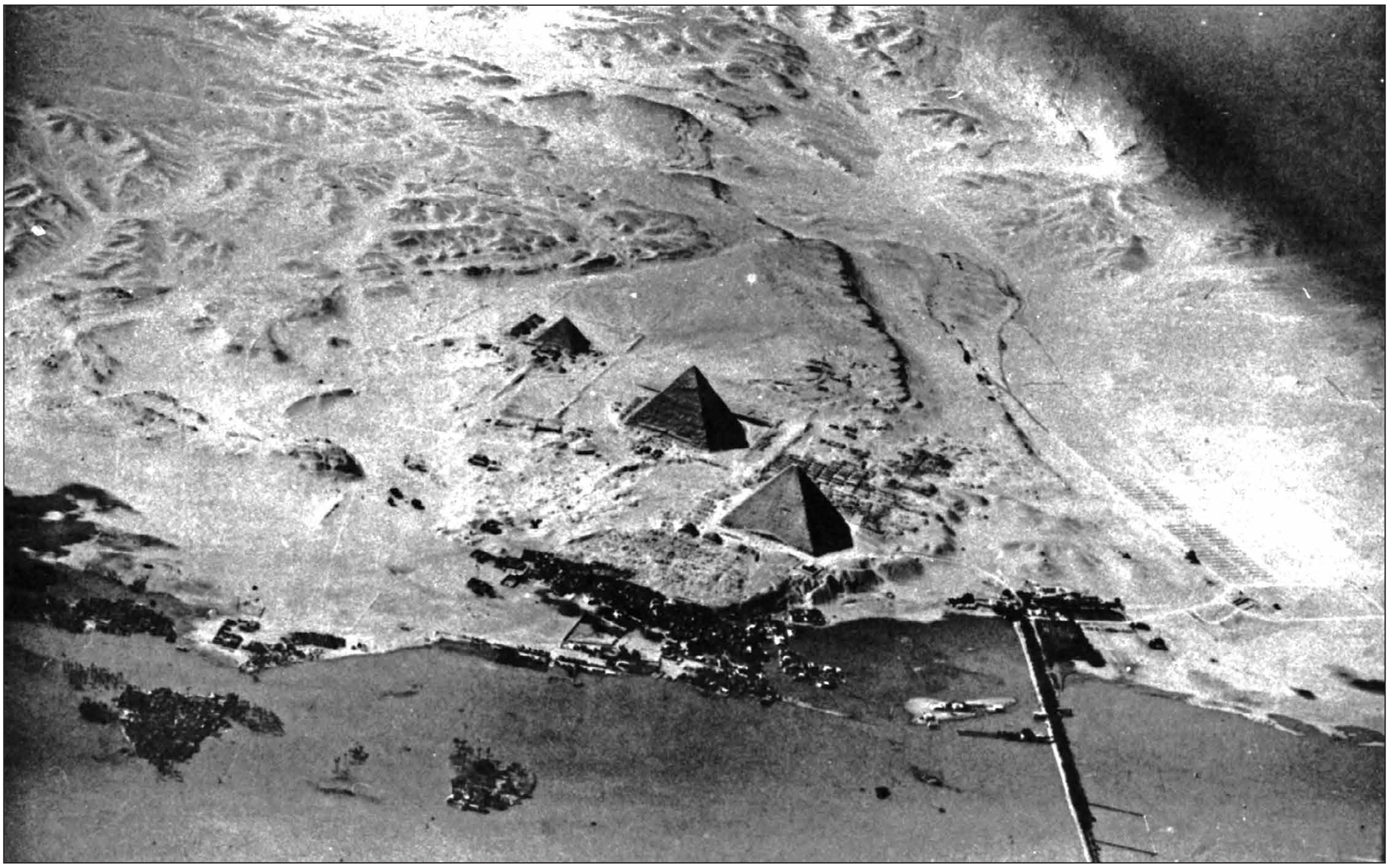
Meanwhile, in the far south of the Arabian Peninsula where an earlier British-Ottoman agreement had divided Arabia between British and Ottoman zones of control or influence, the reality of British control was limited to the port city of Aden and its immediate hinterland. This stretched as far as the nearby frontier with Ottoman-ruled Yemen. Further east, the large and relatively densely populated region of Hadramawt still lay largely outside British control in 1914. It would remain so for some years to come.

There was, nevertheless, considerable support for France and Britain amongst the educated elites of several Arab countries, though less so for the Italians who were regarded as recent interlopers. This was particularly apparent in Egypt where the famous poet Ahmad Shawqi wrote another poem on an aviation theme. This one celebrated the recent exploits of French pilots in defence of the Suez Canal and was published on 1 March 1915. Later that year, Shawqi would be exiled as a troublemaker and so went to Spain for some years. Ahmad Hasanain was a very different personality. A member of Egypt's landed aristocracy, he was secretary to Gen. Maxwell, the General Officer Commanding British Troops in Egypt, when a British protectorate was proclaimed over the country. In fact Ahmad Hasanain would remain essentially pro-British throughout his life.

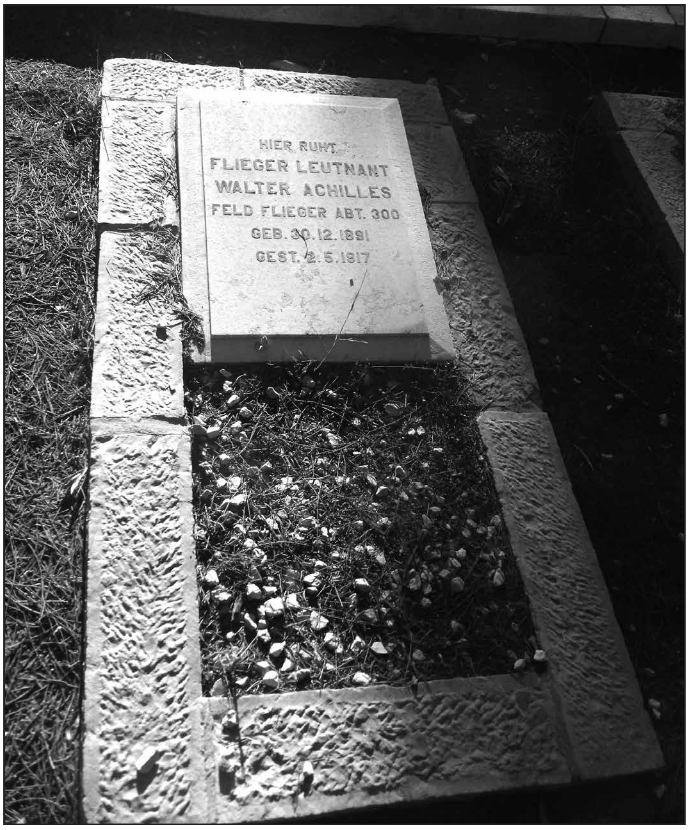
By 1916, the Egyptian government had clarified the confusion of loyalties which had almost paralysed Egypt's administration during the early part of the war. From then on both the government in Cairo and the Egyptian administration threw themselves wholeheartedly into supporting Britain and its allies. The Egyptian Army handed over most of its facilities to the British and there was broad popular support for the anti-Ottoman struggle. This was despite the government's very unpopular insistence that the people hand in their weapons. In the Egyptian countryside many families merely hid their guns. There was also increasing resentment at enforced labour, requisitions and other actions by the British, which were rubber-stamped by the Egyptian government.

Meanwhile, very large numbers of North African soldiers fought loyally for France throughout the First World War. In contrast, there was less sympathy for the Italians. In fact the Libyan people were clearly less inclined to support their new colonial masters, though soldiers from Eritrea and to a lesser extent Somalia did so.

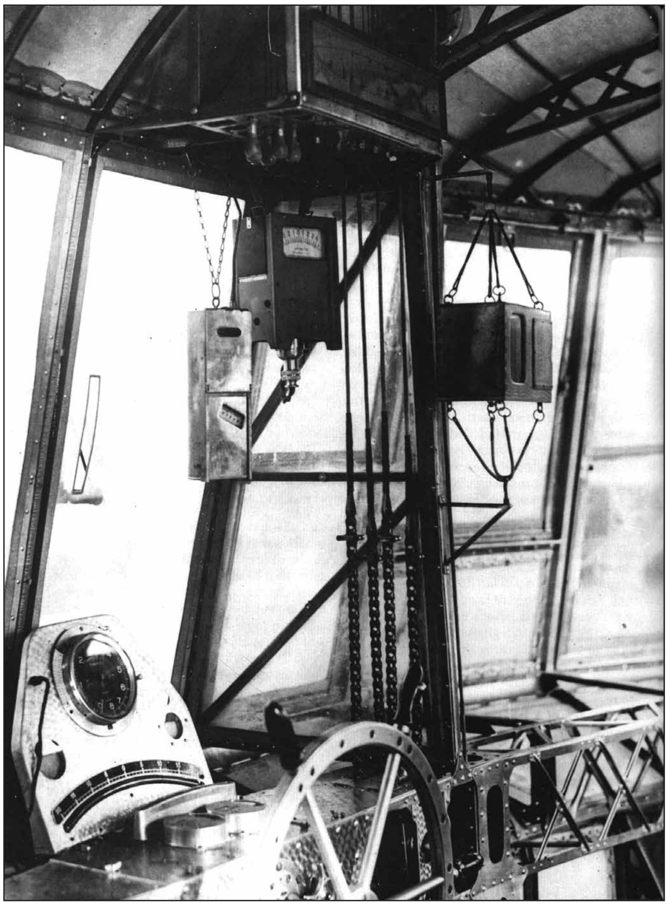
Support – qualified or enthusiastic – amongst Arabic-speaking elites, and relatively quiet acceptance amongst the poor and the peasantry clearly existed, but support for the Allied cause amongst the growing Arab urban middle class was more difficult to obtain. It seems to have been here that social and cultural tensions were most acute. Furthermore, unlike the French in North Africa, the British in Egypt made no attempt to involve Egyptians in the major campaigns of the war or, indeed, in defence of their own country. In fact, the



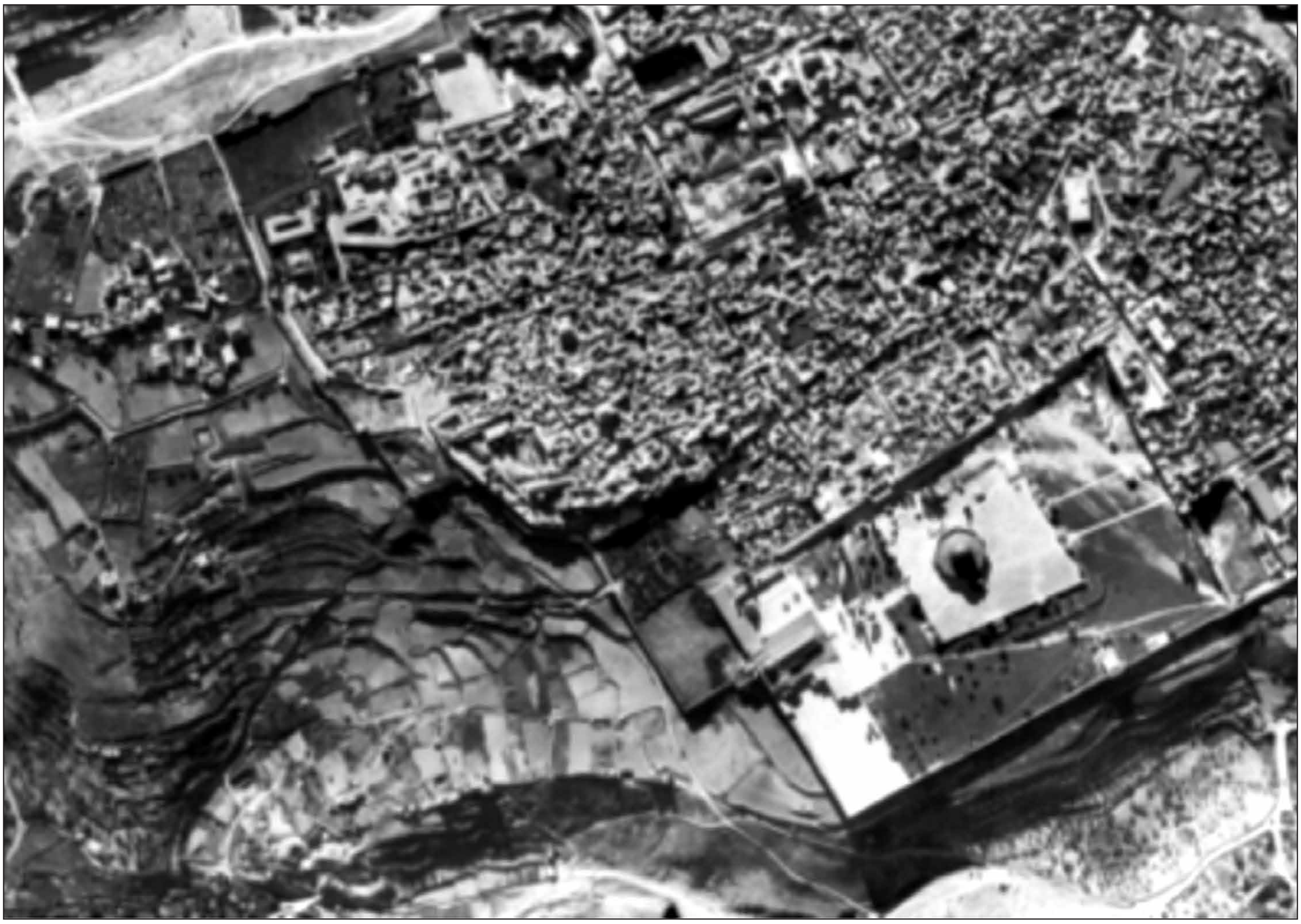
The Pyramids of Giza, west of Cairo, reportedly photographed by Oblt. Falke of the German 300 Paşa Squadron on 13 November 1916. On that date Falke and his pilot, Lt. Schultheiss, flew over the Egyptian capital in their Rumpler C.I and dropped twelve bombs. However the river Nile is apparently in flood, which would not have been the case at that time of year. (Bayerisches Hauptarchiv photograph)



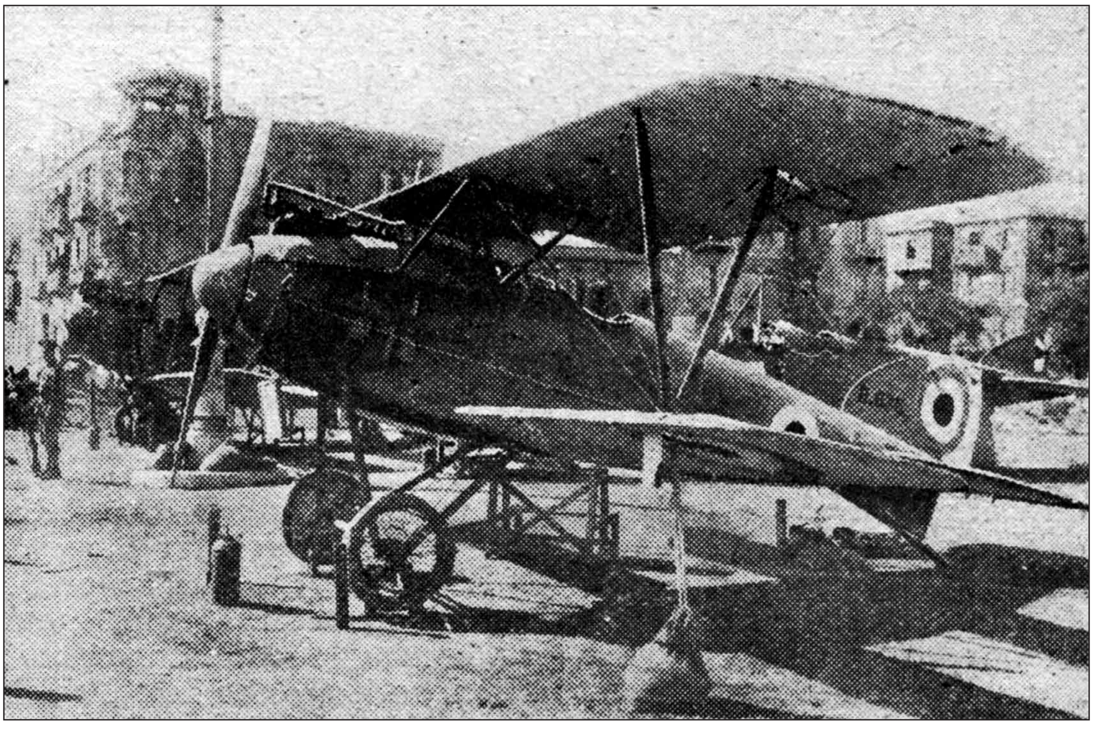
The grave of Flieger Leutnant Walter Achilles of Paşa Abt. 300 in Mount Zion cemetery in Jerusalem. He died on 2 May 1917. The previous day six of Paşa 300's aeroplanes had dropped 230 kg of bombs on British positions following the Ottoman victory at the Second Battle of Gaza. (author's photograph)



The interior of the front gondola and command centre of Zeppelin L59, showing the elevator man's position. (Luftschiffbau Zeppelin photograph)



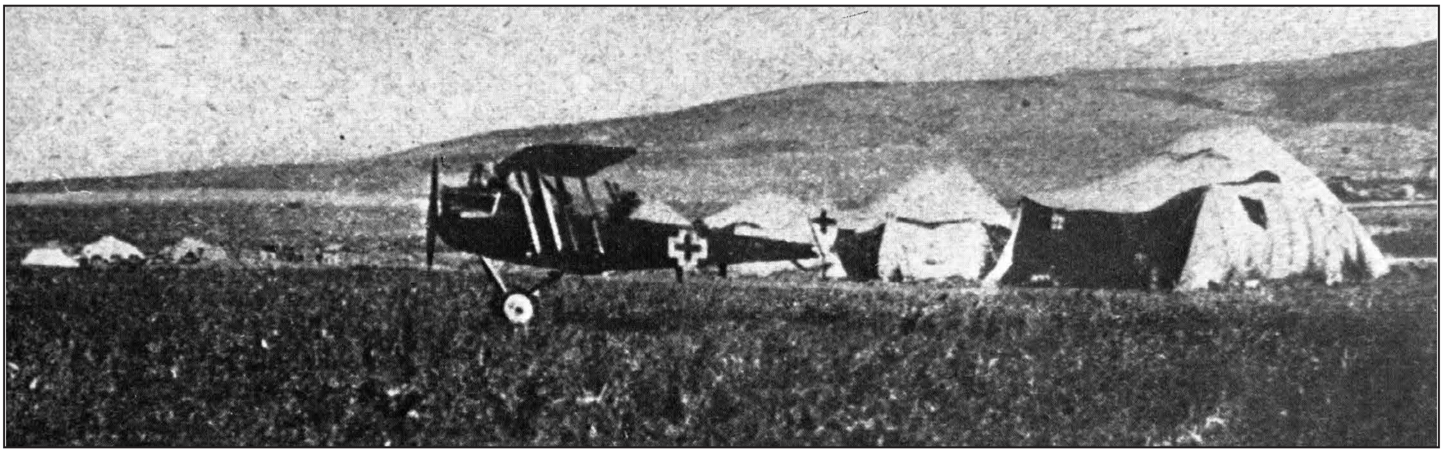
The often-photographed Old City of Jerusalem, this time taken from an aeroplane of one of the German Paşa squadrons in Palestine. The south-western corner of the walled city is at the top left of the picture, and it is here, a short distance outside the medieval walls, that several members of the Paşa units now lie buried in Mount Zion cemetery. (Bavarian State Archives photograph)



Oblt. Ditmar's Albatros D.III (number 636/17) was shot down by Lts. R.C. Steele and J.J. Lloyd-Williams of No. 111 Sq. RFC, in their Bristol Fighter (number A7194) on 8 October 1917. Ditmar was captured and his Albatros scout was quickly repaired. After being given rather unorthodox British markings, it was extensively tested before being displayed, along with other downed enemy machines, in Cairo. (from *The War Illustrated*)

British gave the impression that they really did not care what Egyptians thought. This in turn contributed to a growing fear that Britain intended to absorb Egypt into the British Empire while at the same time the British authorities in Egypt, especially the military authorities, behaved as if the country already was part of their Empire.

Such attitudes were certainly found in the British media; for example when the press sought to publicise the role of Egyptian troops in defence of the Suez Canal. These soldiers were referred to as "Our Egyptian Army". So it is interesting to read the perceptive comments of the historian Desmond Seward in his book *Wings over the Desert*, on the role of the Royal Flying Corps in the Middle East. "Ill-feeling was



A Rumpler C.IV of one of the German Paşa squadrons taking off from an aerodrome in Palestine. While the new-style German crosses show that the photograph was taken late in the Great War, the lush grass and flowers strongly suggest early spring, almost certainly in 1918.

The British Army's 21st (Arab) Labour Corps celebrate news of the Armistice in Basra on 12 November 1918.

exacerbated by troops going on the rampage: the Australians were particularly disliked for their proneness to shoot up cafes or molest passers-by. And Egyptians deeply resented the fact that the martial law declared in 1916 seemed only to apply to themselves and never to foreigners".

The law which aimed to remove the Egyptian population's private weapons also failed. Indeed, increased brigandage and insecurity across much of the countryside merely reinforced the peasantry's determination to hang on to their guns. By 1917 they were described as "armed to the teeth", so a new Arms Law would be introduced in 1917, forbidding the carrying of any weapon. The resulting demilitarization of the Egyptian countryside was deeply resented, especially as the only exceptions were the Egyptian Ruling Family and some senior officials.

The First World War had a huge impact upon the Arab peoples in many different ways. One such impact, barely noticed at the time, would play a part in the early development of air forces within the Arab world. This was the Arab peoples' own experience of air power. In Iraq and Syria, for example, both British and Ottoman forces used aeroplanes and by the time the war ended in 1918 large numbers of local people had first-hand knowledge of the military employment of these new-fangled flying machines. In the case of the substantial number of locally recruited Arab and Kurdish auxiliaries who fought for the Ottoman Sultan, as well as the many Iraqis and Syrians who were enlisted into the Ottoman Army, such experiences usually involved being bombed and strafed by British pilots.

7

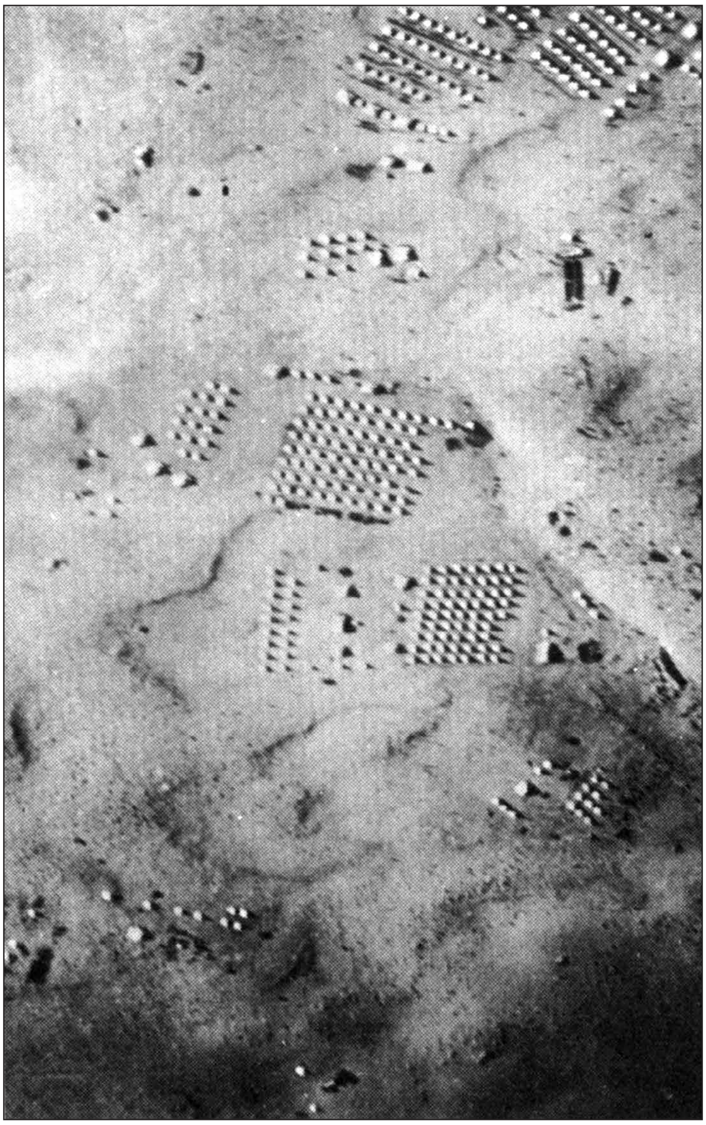
THE OTTOMAN AIR FORCES AND THE ARABS

Poor land communications and the severing of maritime communications by the British, French and Russian navies meant that Ottoman forces campaigning on widely separated fronts often acted autonomously and in some cases almost independently. The most important "Arab" fronts were, of course, in the Egyptian Sinai Peninsula, Palestine, Syria and Iraq. Çamal Pasha, a leader member of the Young Turk movement and a minister in its government, was sent to take command of the Ottoman 4 Army in Syria a few days after the Ottoman Empire entered the conflict. There he proclaimed a brotherhood of Turks and Arabs, but at the same time attempted to crush all dissent or suspected disloyalty to the Ottoman Sultan. Within a short while Çamal Pasha was ruling Syria as a virtually independent *pashalik* where his government was described as less gilded than the Sultan's government in Constantinople, but more efficient and more determined.

Çamal Pasha's rule became even harsher following the failure of his invasion of Egyptian Sinai and his two attempts to seize or close the Suez Canal. In the end Çamal failed because his severity widened the rift between Turks and Arabs. Nevertheless, the growing dissent within what are now Syria, Lebanon, Jordan and Palestine was still in favour of regional autonomy rather than complete independence. The Arab troops who had formed the bulk of Ottoman Army divisions in Syria at the start of the Great War still formed about a quarter of the 2nd Corps in southern Syria in 1918. Furthermore, they continued to fight loyally to the very end of the conflict.

Ottoman Army forces in Iraq at the start of the First World were also largely Arabic speaking. Here the Ottoman Army was supported by large numbers of Arab irregular cavalry who seemed, to the British, to be everywhere. They were most effective on the flanks of the main front as the invaders fought their way up the banks of the Tigris and Euphrates rivers. These Arab irregulars captured stragglers as well as downed Allied airmen while also rescuing downed Ottoman and occasionally German fliers. Somewhat surprisingly, it seems that the British only started making a real effort to win over the local Arab tribes in the final year of the war, 1918. By that time many local people were also turning against Ottoman forces which were now increasingly Turkish rather than Arab. Furthermore, the

Çamal Pasha, a leading member of the "Young Turk" government and currently the Ottoman governor of Syria, which then included Lebanon, Jordan, Palestine and Israel, as well as part of south-central Turkey. He was almost certainly photographed in Damascus and amongst his headquarters staff, in the back row is an officer wearing the cap of an Ottoman Naval Aviation officer. (Turkish Army museum photograph)



A British military encampment near Suez photographed by a Paşa 300 aeroplane at an unknown date. These base camps, in what would later come to be known as the Canal Zone, housed significant numbers of Egyptian Camel Transport and Labour Corps personnel as well as British and British Imperial troops.

Ottoman Army flying cadets in front of Blériot Pingouin in 1914 or 1915. The Pingouin had shortened wings which enabled students to learn the use of an aeroplane's control surfaces at speed without leaving the ground. Also note the red and white roundels, which were painted beneath the wings of Ottoman aeroplanes during this period. (Turkish Air Force Museum photograph)

Ottoman Empire which had ruled the country for centuries was clearly on the verge of defeat.

In Arabia, the Ottoman Autonomous 7 Corps was commanded by Ali Sa'id Pasha, a Circassian officer whose approximately 14,000 troops were supposed to defend not only the Yemen but also the Hijaz and the intervening province of Asir. He and his largely Syrian soldiers would soon be not only outnumbered by their foes, but would be virtually cut off by the Arab Revolt of 1916. Yet Ali Sa'id and the mere 2,000 troops he could direct against the British imperial garrison in Aden succeeded in attracting some 4,000 Yemeni auxiliaries; mostly Arab tribal levies and volunteers. Early in 1916 the Ottoman Army sent 3,500 assorted fighting men, supported by a tiny German mission, to reinforce the Ottoman troops already in Lahij. This Ali Sa'id Pasha had captured on 5 July 1915. Thereafter, however, the Arab Revolt interrupted all but the most tenuous communications between the Ottoman heartlands and Yemen, and no further reinforcements arrived. British naval power had meanwhile made the Red Sea into an Allied lake and as a result Ottoman hopes of taking control of Aden came to nothing. Similarly, the Ottoman troops investing Aden fought their entire war without air support, yet they refused to surrender even after the rest of the Ottoman Army further north did so. In fact Ali Sa'id Pasha did not accept defeat until January 1919.

The Ottoman Turks had tended to attribute their defeat in the First Balkan War to a reliance upon non-Turkish technical support staff. Some of the latter were also accused of disloyalty, and while there may have been some truth in this where Armenian technicians were concerned, it is clear that Jewish technicians proved themselves very loyal and would so remain throughout the First World War. German aircraft and German volunteers had also served the Ottomans well during the Balkan Wars, but French influence still predominated. As a result, the tiny air arm which the Ottomans possessed at the start of the First World War was largely French in equipment, organization and training.

The early months of the First World War, before the arrival of substantial German assistance, remain a minor aeronautical epic for Turkey. During this period, the Ottoman Army air service was still part of the Engineering Corps. The French director of Ottoman military aviation, Major the Marquis De Goÿs de Mezeyrac, retired on 5 August 1914, three days after the Ottoman Empire signed a supposedly secret treaty with Germany. Promoted to the rank of Colonel, De Goÿs soon became commander of Groupe de Bombardement No. 1 and led the French Air Force's first big bombing mission of the First World War on 27 May 1915. Though he was shot down and imprisoned, De Goÿs escaped in November 1917 and returned to duty with the French Air Force.

Meanwhile, De Goÿs' place at San Stefano had been taken by Ottoman Artillery Major Abdüllâtif. The pilots under his command included veteran of the First and Second Balkan Wars as well as student pilots and student observers. A naval flying school had been established next to the airfield at San Stefano (Yeşilköy) in June 1914, commanded by Executive Lt. Necmettin. Among the trainee naval pilots were Ahmet Ali Arap from Izmir and Ali Mehmet from Divrik who are believed to be the first black combat pilots in aviation history. Arap's family name actually meant "the Arab" and, although born in what is now Turkey, Ahmet Ali Arap was descended from Nubian or Sudanese slaves brought to that part of the Empire many decades earlier.

Most Ottoman aircraft were by now in need of a complete overhaul. There were also very few spares and little technical back-up available after the Ottoman Empire entered the First World War on 29 October 1914. A US War Department paper dated 22 February 1919 stated that at outbreak of war there were, at San Stefano, "two Blériot monoplanes, one Rumpler biplane, four REP and four Deperdussin machines; also three machines for instructional purposes (presumably the stub-wing Blériot Pingouins). None of these machines were of a fighting type". According to Turkish records the aircraft consisted of two 80 hp Blériot XI-2s named *Edremit* and *Tariq Ibn Ziyad* (leader of the first Arab-Muslim invasion of the Iberian Peninsula in 711), the 100 hp Rumpler 4A/13 named *Fethi*, and the 80 hp Deperdussin named *Osmanli* which had been transferred from the training register. The naval air arm consisted of two 100 hp Nieuport VI/VII seaplanes, including that named *Mahmud Şevkat Paşa*, but there was only one fully trained pilot. Meanwhile the Curtis flying boat seems to have been used for ground instruction. None of these naval aircraft were mentioned in the American report. An 80 hp Ponnier purchased earlier in 1914, and which may originally have served as De Goÿs' own machine, plus the Blériot XI-2 named *Ertuğrul* which had crashed in Palestine during the flight to Egypt were currently under repair. Turkish sources also suggest that all the REPs had been decommissioned while the purely training machines consisted of three 35 hp Blériot

Ottoman Naval aircrew pupils and instructors in front of the Navy's solitary Curtiss Model F (later called a Model 7) flying boat at Yeşilköy outside Istanbul. Yüzbaşı Ahmet Arap, standing third from right, was one of their instructors.

Ottoman personnel, including pilots, observers and ground crew, with one of the air corps' remaining Blériot XIs at Yeşilköy, before being deployed to the Dardanelles late in 1914. The man standing in the centre is Ahmet Arap of the naval flying corps, who was one of the world's first pilots of African heritage. (Turkish Air Force Museum photograph)

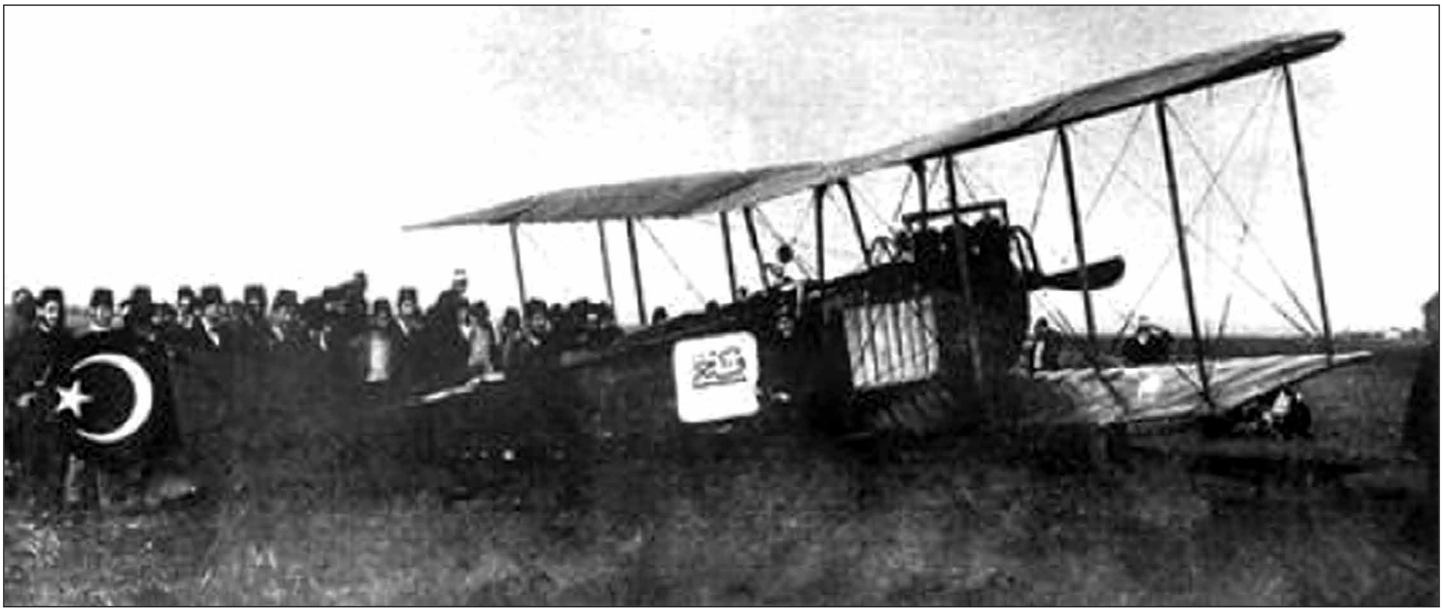
ground-hopping Pingouins and the 35 hp Deperdussin.

This book is not a history of the Ottoman air forces. However, an outline of its activities during the First World War, especially in the Arab Provinces of the Ottoman Empire, is essential to an understanding of the Arab peoples' changing attitude towards air power during the early part of the 20th century. Within days of war being declared in Europe, pilot Fâzil and his recently trained observer, Naval Lt. Hüseyin Sedat, were sent to their new base at Çanakkale on the Asiatic shore of the Dardanelles. This was because the conflict had arrived on the Ottomans' doorstep on 11 August in the shape of two German warships, the *Goeben* and *Breslau*, which sought sanctuary within Ottoman waters. Fâzil's first test flight was on 17 August, his next mission being a reconnaissance on 5 September which lasted one hour and 10 minutes. He returned with information about British warships assembling off the Dardanelles, having seen an Allied armada which consisted of three cruisers, two destroyers, two torpedo-boats and a support vessel.

Subsequent missions monitored the growing Allied fleet around the Ottoman (now Turkish) north-eastern Aegean islands of Imroz and Bozkaada, and the Greek island of Limnos. On 19 October, the second Nieuport seaplane named *Mahmud Şevkat Paşa* was sent to Çanakkale and probably flew the final Dardanelles mission of the year on 5 November. On that day Britain and France officially declared war on the Ottoman Empire. After the Ottoman state itself had entered the fray at the end of October, the tiny Ottoman Army and Navy air arms went to their war stations and for reasons which are not entirely clear, but which could reflect unsuitable winter weather, the Nieuport seaplanes were replaced at Çanakkale by the repaired Blériot named *Ertuğrul*.

The original Ottoman war plan had envisaged sending two Blériots to the Caucasus front, one of the Nieuports to the Dardanelles, and the Rumpler to Syria. Only the British campaigned on more numerous and more varied fronts during the First World War than did the Ottoman Army. Ottoman Army and Navy air squadrons supported Ottoman forces on most of these fronts; the only real exceptions being the isolated Yemen front around Aden, and the Balkan fronts. On the latter a token Ottoman force fought alongside the Central Powers with air support provided by the German and Austro-Hungarian air forces. There were meanwhile maritime "fronts" on the northern, western and southern coasts of Anatolia where, at various times, a handful of Ottoman aeroplanes formed the only real defence against the possibility of enemy naval landings.

Russia and the Ottoman Empire had been at war since 2 November 1914. Within days of the outbreak of hostilities two Blériot XI-2s, with their pilots Fesâ and Sâlim, were put aboard the steamship *Bezmi Âlem* to be taken to Trabzon, close to the Caucasus front. However, on the night of 6-7 November Russian warships destroyed this convoy along with the two aeroplanes, Fesâ and Sâlim



The Rumpler 4A/13 Doppeltaube, now with the name *Fethi* written in a large square – either painted in white or consisting of bare canvas from which the grey paint had been removed – on the fuselage. It was almost certainly on its way to Syria in December 1914, flown by Şâkir Fevzi. (Ole Nikolajsen archive photograph)

being picked up from the sea and sent to a Russian prison camp in Siberia. Consequently, the Ottoman Third Army had to fight the forthcoming – and disastrous – winter offensive in the Caucasus without any aerial reconnaissance.

Attempts to provide the Fourth Army in Syria with air support for its forthcoming attack on the Suez Canal were similarly unsuccessful. The Rumpler 4A/13 named *Fethi* and its pilot Şâkir Fevzi reached the port of Iskenderun in northern Syria by train, without mishap. There the aircraft was reassembled prior to flying to Damascus via Aleppo, but on 20 December the British light cruiser *Doris* appeared. Its captain sent a message demanding the surrender of the Rumpler and all other military material. Otherwise he would bombard the town of Iskenderun. The city's governor rejected this ultimatum while the Rumpler was disassembled and hidden in a nearby railway tunnel under cover of darkness. Next day HMS *Doris* shelled the Iskenderun-Payas coast but failed to damage the elusive aircraft.

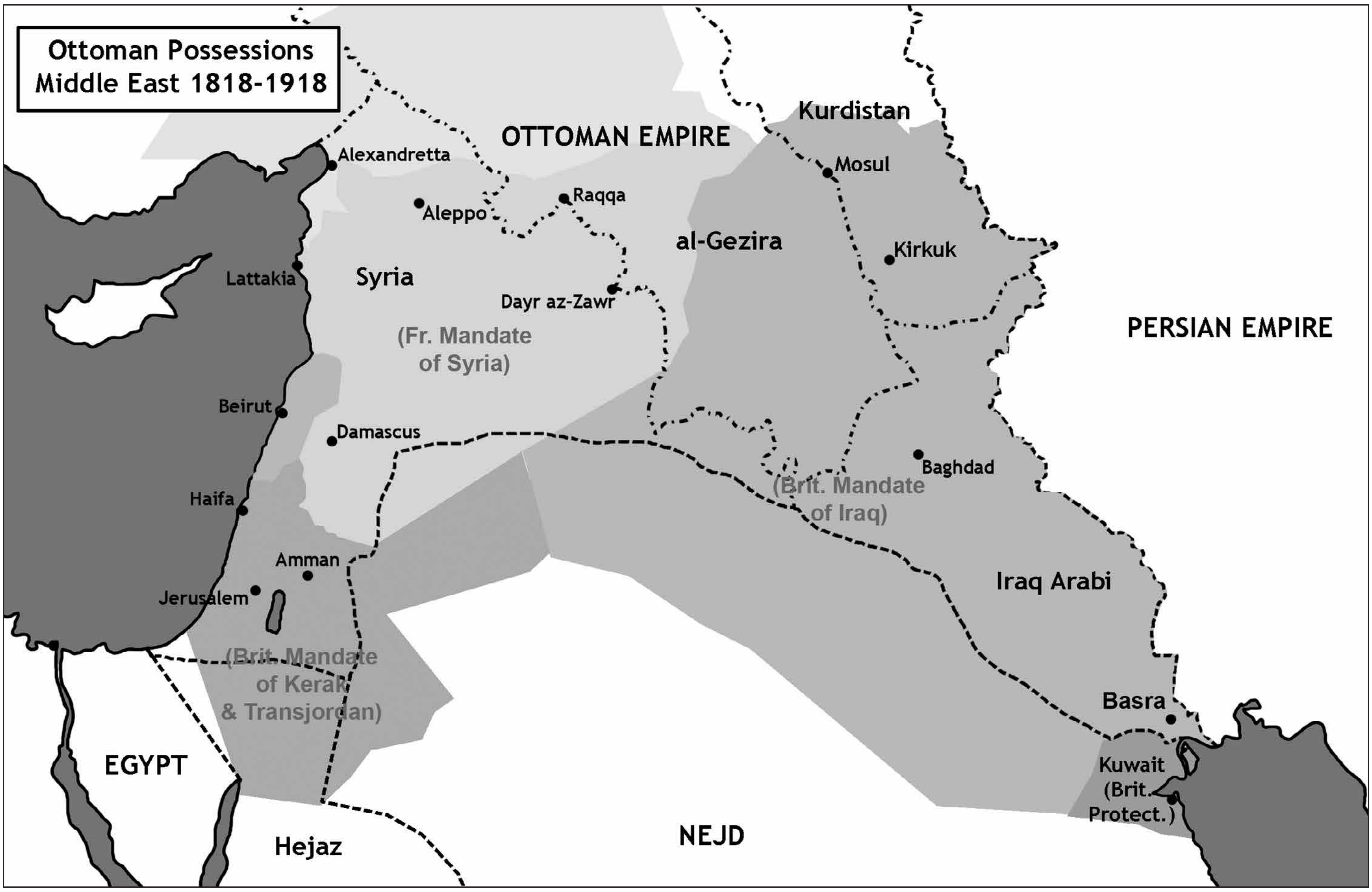
As soon as the British warship departed, the Rumpler *Fethi* was reassembled and flown to Aleppo. On 28 December it was due to leave for Damascus and a large crowd gathered to see the spectacle because flying machines were still barely known in Syria. However, as Şâkir Fevzi took off he suddenly lost speed and came down heavily, colliding with the crowd. Three people were killed, three soldiers and a woman being injured. The Rumpler itself suffered a broken propeller and severe structural damage. So it was that the Ottoman Fourth Army's forthcoming offensive across the Sinai Peninsula had to go ahead without air reconnaissance. Facing it were Anglo-Egyptian forces supported by six machines of the French Navy's Escadrille Nieuport. Ironically, these were the same aeroplanes that had originally been built for the Ottoman Navy.

Ottoman troops were also fighting in Iraq, where the British occupied Basra on 22 November. They would have to wait a while before they received air support. Ottoman troops in Yemen, who soon penned the British into a tiny enclave around Aden, never got any. Meanwhile, back at San Stefano the rest of the Ottoman air force concentrated on training. Unfortunately, but not surprisingly, the fact that their enemies had located Ottoman air units on their way to both the Caucasus and Syrian fronts led to rumours of betrayal within the tiny air arm.

The Ottoman Empire was meanwhile still separated from its German and Austro-Hungarian allies by hostile or neutral Balkan countries. It would take some time before much practical help arrived but early in January 1915 a Prussian officer, Major Erich Serno of the German Air Service, arrived in the Ottoman capital. Unfortunately, Serno's records and reports reflect his natural desire to enhance the German role and to dismiss that of his French predecessors. His information also disagrees in certain minor respects with published Turkish records, particularly where the earliest days are concerned.

Immediately after the Ottoman Empire's entry into the war, Enver Pasha, the new Minister of War, asked his allies for two German flying units to be employed on the Caucasus and Sinai fronts. This was not possible because the Germans had their hands full elsewhere. Nevertheless, Major Serno was seconded from service on the French front to take charge of twelve German civilian pilots and thirty-two civilian mechanics who had volunteered to help the Ottoman Empire. Twenty-four relatively modern but unarmed Rumpler B.Is, Albatros B.Is and B.IIs, plus spares and support equipment, were also allocated for Ottoman use, though getting them to Turkey would be another matter. At around the same time several Ottoman officers were selected for intensive instruction in Germany where they arrived during December 1914. They consisted of student pilots Ali Rizâ and Hasan Tahsin, plus Abdullah and Mehmet Ali who were veterans of the Balkan conflicts.

On 3 February 1915, Erich Serno, who was now attached to the German Military Mission in Constantinople, took command of Ottoman flying units, training and support services. His most immediate tasks were to get the German volunteers and their aircraft to Ottoman territory, to reorganize the existing flying school at San Stefano (Yeşilköy) and to start training further Ottoman personnel. He also had to advise the Ottoman High Command on aviation matters. German aircraft would be shipped from Adlershof near Berlin; twelve to be sent immediately, the rest following by early 1915. The machines themselves would travel through the Austro-Hungarian Empire and the still neutral countries of Rumania and Bulgaria one at a time in packing-cases. These cases would be disguised either as circus equipment or Greek Red Cross supplies.



A map showing Ottoman provinces as in existence in the Middle East until 1918: shadows indicate the original zones of control of 1916 and subsequent Franco-British occupation of the area. (Map by Tom Cooper)

Each machine would be accompanied by a pilot and a mechanic, who would travel incognito as civilians. Major Serno himself had travelled in the guise of a German commercial salesman with his uniform following separately; arriving safely early in January 1915.

The German plan was to build an entirely new Ottoman Air Force or *Osmanli Havakuvvetleri* around the nucleus of a unit consisting of new German aircraft with German volunteer crews. Nine Rumpler B.Is, five Albatros B.Is and B.IIs would eventually arrive during the course of 1915, five of them quickly being sent to support the Dardanelles Squadron at Çanakkale. To the Germans this was known as the *Dardanellen Fliegerabteilung*, and to the Turks as the *Çanakkale Bölük* (Çanakkale Squadron). Later in 1915, with the establishment of other units, it was re-designated as No. 1 Squadron.

Where the Ottoman Navy's flying arm were concerned, it was decided to create two units; one to patrol the Dardanelles while the other supported the Ottoman Fourth Army in Syria, Palestine and Sinai from a base outside Damascus. The Dardanelles unit was to have a fixed airfield and support facilities, the Syrian unit hopefully being capable moving with the Fourth Army as it advanced into British-occupied Egypt. Unfortunately, there were no lorries available and so horse-drawn waggons and even camel-caravans would be required to transport the Syrian squadron's equipment.

The first shipment of new supplies, though not of aircraft, arrived from Germany in mid-February. Four German civilian mechanics appeared but as a series of difficulties had delayed the arrival of German aircraft at San Stefano, these set about helping their Ottoman colleagues make some of the old French aeroplanes airworthy. Elsewhere, Ottoman pilots used what remained of their original largely French equipment. There was not a lot. The repaired Blériot *Ertuğrul* continued to watch a combined Anglo-French fleet assembling off the Dardanelles while the repaired Deperdussin *Osmanli* remained at San Stefano to patrol the northern approaches of the Bosphorus which were threatened by the Russian Black Sea Fleet.

The greater threat lay, however, outside the Dardanelles where an Anglo-French fleet might break through to the Ottoman capital. Here the repaired Blériot *Ertuğrul* and its crew, pilot Çamal and observer, Naval Lt. Hüseyin Sedat, provided the only air reconnaissance. In contrast, enemy air power steadily increased until it reached forty-two aircraft. Çamal and Sedat's first mission of 1915 was on 20 January, observing the enemy ships near Bozcaada on the same day that British aircraft made a reconnaissance of Ottoman positions. Other flights were made at a rate of approximately one per week. For example, on 6 February First Lt. Çamal made a daring one and half hour flight far beyond the entrance to the Straits, bringing back a disturbing report that the Allied armada had increased to thirteen ships. These he described as torpedo-boats, a submarine, a transport and an aircraft mother-ship which had assembled around Bozcaada and Merkep ("Donkey") Island. Çamal's return was, in fact, nearly cut off by a flight of enemy aircraft.

On 19 February five British and two French battleships started the bombardment of Ottoman defences around the Dardanelles, opening the blood-soaked Gallipoli campaign. That day an enemy aircraft reportedly crashed on Merkep Island, after which two others came looking for it at the same time that the Blériot *Ertuğrul* was spotting for Ottoman shore batteries. The Anglo-French naval bombardment, supported by air reconnaissance and some aerial

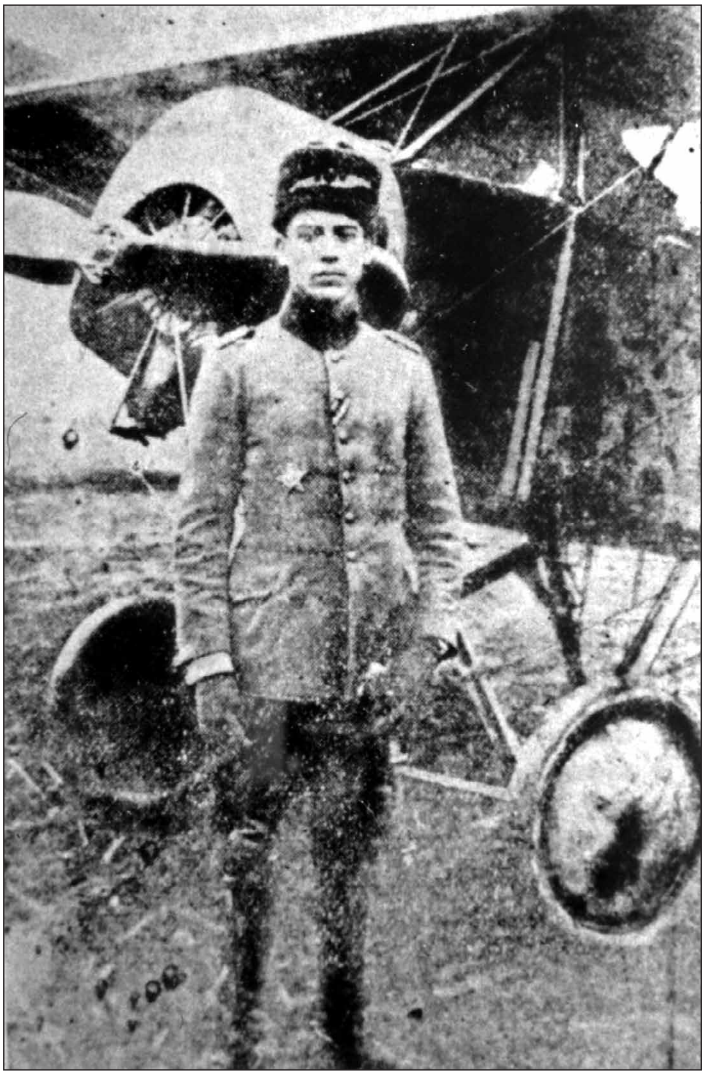
Mülazım (Lt.) Ibrahim Orhan Bey earned fame as part of the crew of an Ottoman Albatros C.I which brought down an enemy Farman aeroplane during the Gallipoli campaign on 30 November 1915. He was later selected for the No. 3 Bölük, which was sent to the Hijaz to confront the Arab Revolt in 1916.

bombing, would continue with occasional pauses until the middle of March.

During this period, *Ertuğrul* supported Ottoman coastal observation points by bringing reports of enemy movements beyond the horizon. The most dangerous flights were those out over the Aegean, searching for British and French ships, which were attempting to hide behind the coastal islands where they were invisible to shore-based observers. On March 17, the first Rumpler B.I arrived and was assembled at Çanakkale. Major Erich Serno's memoires make much of a "first reconnaissance" of the enemy carried out by himself and Kapitän-Leutnant Schneider the following day. He made no mention of earlier work done by the Blériot, or of the fact that First Lt. Çamal and observer Osman Tayyar flew a final mission in the antiquated Blériot *Ertuğrul* that same day. They took off at 1600 hours and proceeded westward towards Bozcaada island, returning with news that there were now nine large warships and eleven smaller craft in the area.

On 22 March *Ertuğrul* was finally withdrawn from what had become No. 1 Squadron of the Ottoman Air Force. Mehmet Çamal returned to a hero's welcome at San Stefano and later served with distinction in No. 12 Squadron in north-western Iran. He and his naval colleague, Lt. Hüseyin Sedat, are still regarded by the Turks as the greatest flying heroes of the Gallipoli campaign. Their only rivals are Lts. Ali Rizâ and Ibrahim Orhan of No. 1 Squadron who shot down a French Maurice Farman over the Dardanelles while flying an Albatros C.I on 30 November 1915. Part of the Frenchman's propeller is now preserved in the Turkish Air Force Museum at Yeşilköy. The "victory machine" flown by Rizâ and Orhan had the serial number AK1, the old system of giving each aircraft individual names like ships having been stopped as soon as Germans took effective control of the slowly expanding Ottoman Air Force. As its number suggests, this Albatros C.I was one of the first to arrive in September 1915, by which time the shipment of German aircraft to Ottoman territory had grown easier.

Earlier it had been much more difficult and various means were tried to get Albatros B.Is, B.IIa and Rumpler B.Is to the Ottomans. The first shipment of three aircraft had flown across neutral but unfriendly Romanian territory, landing at Lom Palanka in neutral but supposedly friendly Bulgaria on 4 February 1915. Unfortunately, instead of being packed into crates as planned for the next stage of their journey, the aeroplanes were seized by the Bulgarian authorities. A second batch of five machines tried again in March. One was again seized by the Bulgarians but four others crossed the Ottoman frontier safely, three by rail while one Rumpler B.I was flown.



A relatively well-known photograph shows pilot Ibrahim Orhan standing next to a Pfalz A.II with a black square painted beneath its wing. It was supposedly taken in the Hijaz while Orhan was serving with No. 3 Bölük. However, a better quality and unretouched version of this picture shows the Pfalz still with an original German black cross. In fact the photograph was almost certainly taken before Orhan and his colleagues set off for Arabia via Damascus, where the "Christian" crosses were replaced by "Islamic" crescents and stars.

When this aeroplane landed at San Stefano it still had German markings. Enver Pasha immediately wanted the Rumpler to make a morale boosting flight over the capital, but only if it carried Ottoman national markings. For some reason this was impossible so Enver agreed to a flight with the machine still identified by black German crosses. A simple shortage of red dope seems to have been the problem and this aircraft subsequently reappeared wearing the new form of Ottoman national markings which would be used on future Ottoman aircraft. These consisted of plain black squares painted directly over the German crosses.

Ottoman Army pilots Mithat, who is wearing an Arab kifiya, and Fazıl Bey, whose kalpak has the slanting wings of the air units. They had been greeted by staff officers of the Ottoman Fourth Army at Damascus railway station on 17 March 1915. (Turkish Air Force Museum photograph)

which was now bombarding the Dardanelles forts. By April, four Rumpler B.Is and five Albatroses had joined the unit at Çanakkale and Galata.

While the great drama of the Gallipoli Campaign was unfolding south of Constantinople, another threat was looming to the north. On 28 March a large Russian fleet consisting of four battleships, three cruisers, six torpedo-boats, five support vessels and a flying-boat mother-ship, bombarded several Turkish Black Sea ports near the Bosphorus. Not surprisingly the Ottoman High Command feared that the Russians were about to try an assault from the north, in coordination with the British and French from the south. The Russian bombardment continued on 30 March, supported by Russian flying boats. On 25 April, British, British Imperial and French forces landed on the Gallipoli Peninsula and the Asiatic shore of the Dardanelles while Russian naval attacks resumed on 2 May.

On 3 May coastal observation posts telephoned San Stefano aerodrome with news that the Russian fleet was now approaching the mouth of the Bosphorus itself. It was vital for the Ottoman High Command to know whether the Russian fleet included troop-

Ottoman pilots Mithat (right) and Fazıl Bey (seated on rock) with three officers of the Ottoman Fourth Army in Syria in 1915.

After recovering from his crash in the Ottoman Army's solitary Ponnier monoplane outside Damascus on 9 April 1915, Mülazım Evvel Mithat was placed in command of No. 4 Bölük from January to March 1916. Next he served for some time as an instructor at Yeşilköy before being transferred first to No. 2 Bölük in Iraq and then to No. 12 Bölük in western Iran in 1917.

The first Rumpler B.I to arrive, plus two others from the first delivery, would make their operational debut as part of the No. 1 Dardanelles Squadron based partly at Çanakkale and partly at Galata. The latter was a new airfield near the town of Gelibolu (Gallipoli) and overlooking the north-eastern entrance to the Straits, not the similarly named suburb of Istanbul. This first Rumpler B.I, with its new Ottoman serial number R1, was sent to Çanakkale by ship, arriving on 17 March. From then on this aeroplane continued the work previously done by Mehmet Çamal's Blériot, giving Ottoman coastal artillery batteries information about the Anglo-French fleet landing transports or was simply making a large-scale demonstration. At that time, there was still only one aircraft in flying condition at San Stefano; the veteran Deperdussin named *Osmanli*. Capt. Fevzi and his newly trained observer, Second Lt. Sami Bakırköy, immediately took off to make a reconnaissance. Near Uskumru village a patrol of enemy aircraft, certainly Grigorovich M5 flying-boats, is believed to have intercepted them, shooting down the Deperdussin which fell in the outskirts of the Belgrat forest. Fevzi and Bakırköy were both killed, being the first Ottoman aircrew to die in action during the First World War. During this Russian naval attack five Russian flying boats had been in operation, forming the complement of the "hydro-cruiser" *Imperator Nikolai I* and scouting for two Russian battleships. Other aircraft from another "hydro cruiser", the *Almaz*, spotted for a third Russian battleship which was shelling the nearby Ottoman port of Iğneada. Here, as on all fronts, the Ottomans were overwhelmingly outnumbered in the air, and they would remain so for the rest of the war.

Nothing daunted, on 2 August the Ottomans transferred their solitary and even older observation balloon from Adrianople (Edirne) to one of the fortresses which defended the northern entrance to the Bosphorus. This balloon was still able to reach a height of between 400 and 500 metres. Its crews were First Lts. Hüseyin Avni and Sadrettin, plus Technical Lt. Mustafa Rifat Mazlum and Reserve Second Lt. Hüseyin Kâmil, all under the command of naval Lt. Mümtaz. Meanwhile, the first two German 100 hp Mercedes powered Gotha WD 1a seaplanes had very recently arrived. One was promptly sent north to support the balloon in maintaining observation of the waters north of the Bosphorus.

Far to the south in Syria, the damage to Şakir Fevzi's Rumpler had left Çamal Pasha, governor of Syria and commander of the Fourth Army, without air reconnaissance. Pilot Fevzi was, therefore, hurriedly sent to Germany to obtain a replacement aeroplane. In fact, the Ottoman High Command asked for the loan of a Zeppelin, but the Germans would only release a single LVG B.II. This crashed and fell into Serbian enemy hands during its delivery flight; however, Çamal Pasha persisted in his demand for at least one aircraft. The only machine available was the recently renovated Ponnier from the San Stefano flying school which, with its 80 hp engine, was hardly suitable for frontline operations in the Sinai desert. The Ponnier was nevertheless sent to Syria in February 1915, along with Capts. Fazil Bey and Mithat, plus a supporting unit of ninety-three soldiers. This unit reached Damascus on 17 March. Meanwhile efforts appear to have been made to repair the Rumpler 4A/13, to erect two canvas hangers as well as establishing repair and maintenance facilities at the unit's proposed base at Beersheba in southern Palestine.

Further delays were caused by the need to prepare, print and have official religious authorisation for large numbers of Arabic leaflets to be dropped over enemy-held territory. This early attempt at aerial propaganda was aimed at the Muslim population of Egypt who were urged to respond to the Ottoman Sultan's call for a *jihad* against occupying British forces. However, fate was once again against the Fourth Army's attempt to get air support. On 9 April Capt. Mithat lost his bearings as a result of a lack of maps. As darkness was about to fall he had to make an emergency landing near the Jabal Hilal uplands. The Ponnier was a write-off.

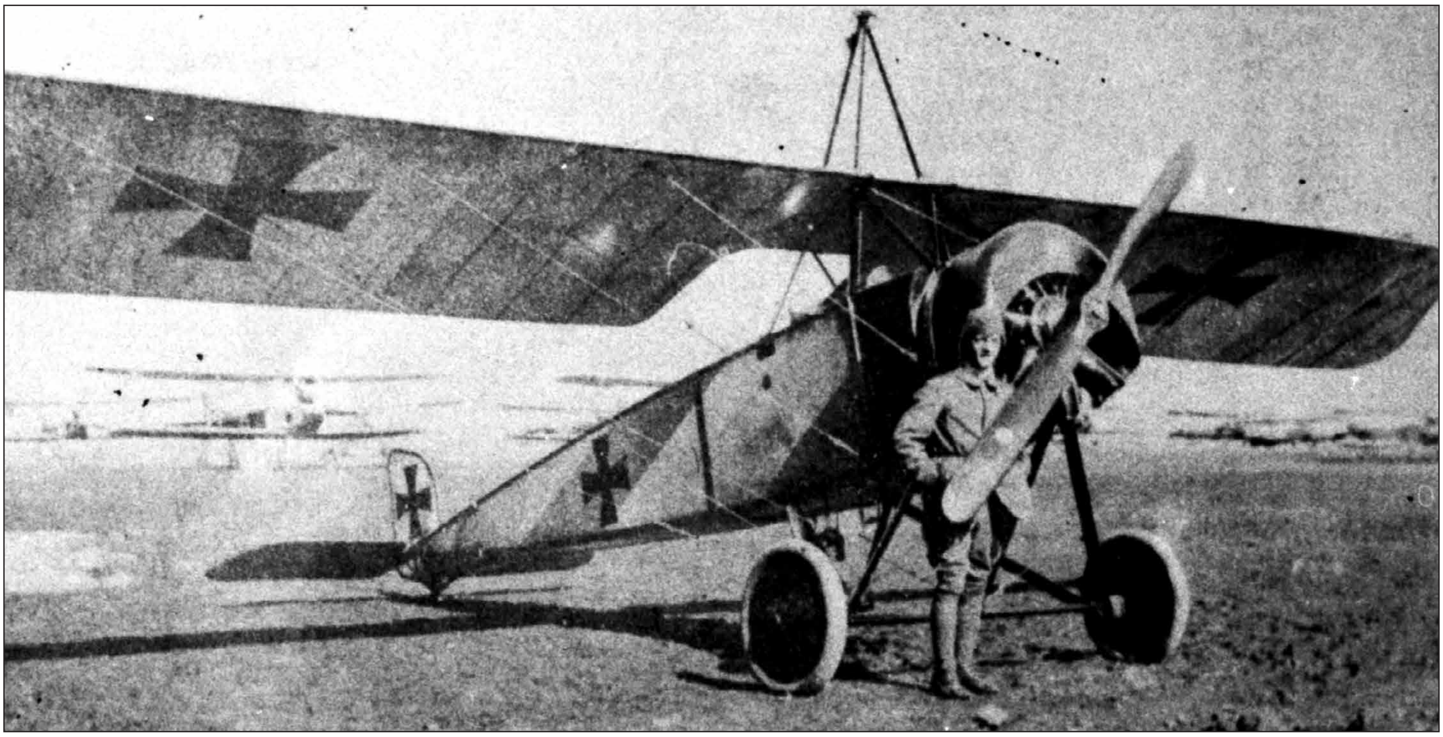
In September Mithat returned to Constantinople where pilots were desperately needed for the Gallipoli campaign because so many men had been sent to Germany for further training. In Syria, the Fourth Army had to wait another year before it got any aircraft, by which time it had fought and lost the first Suez Canal campaign. As the German General, Friedrich Freiherr Kress Von Kressenstein, later wrote of this doomed thrust across Sinai, the Ottoman expeditionary force had neither aeroplanes nor anti-aircraft guns and was considerably troubled by the Allied aviators. Yet it arrived at the Canal "without losing a man or an animal".

Rasit Ahmet Fehmi's ID photograph. This decorated Ottoman observer, who had been born in Yemen and had served in 2 Bölük during the Gallipoli campaign in 1915, was one of those select few Ottoman airmen who were sent to Germany for pilot training. Fehmi was there during late in 1917 and early 1918. He subsequently flew as a fighter pilot with the 9th Bölük at Yeşilköy, in defence of Istanbul during the final months of the war.

There was no further mention of the Ottoman Navy's Nieuport seaplanes, nor of its Curtiss flying boat. To all intents and purposes the naval flying school at San Stefano was suspended for a year while six new Gotha WD.2 seaplanes were ordered and six Ottoman naval officers were sent to Germany for instruction on these machines. It would clearly take time to establish an effective seaplane unit, so, early in May, the German Navy agreed to release five of its own older Gotha seaplanes. Five volunteer civilian pilots and five merchant marine officer "observers" were sent to Constantinople as a stop-gap measure.

The first three of these Gotha WD 1a seaplanes reached Ottoman territory after flying across neutral Bulgaria with wheels attached to their floats, two promptly being sent to the Dardanelles to support the landplanes already based at Çanakkale. Another Gotha WD 1a remained at San Stefano to back up the antiquated balloon which was still watching the Bosphoros approaches. These machines retained their German markings and Imperial Navy serial numbers. They were, in fact, still being regarded as forming a German *Wasserfliegerabteilung* rather than an Ottoman unit.

The year 1915 had been one of radical change for the Ottoman air forces. The old, largely French built aircraft had been used up and the French trained personnel were now being retrained along German lines. Meanwhile many more men were enlisted. One such was Lt. Ahmet Fehmi who had been born in Yemen. He trained as an observer in 1915 and served as such in No. 1 Squadron at Çanakkale from September that year. During the Gallipoli campaign this unit had been equipped with four unarmed Rumpler B.Is and five Albatros B.Is, following the withdrawal of its old Blériot. Four



A Pfalz A.II, German licence built Morane-Saulnier Type L, in Ottoman service but still with its original German markings. The photograph was probably taken in Iraq where four of this type were used by the Ottoman Army's No. 2 Bölük (squadron) in 1916.

relatively modern Albatros C.Is armed with machine-guns then arrived in the same month as Lt. Ahmet Fehmi, followed by a single Fokker E.I scout in October.

The appalling Gallipoli Campaign had started on 17 February 1915 and during the course of the fighting No. 1 Squadron flew intensive reconnaissance sorties not only of the battlefield but extending further afield, across nearby seas and islands. British and French reconnaissance aeroplanes were, of cource, also very active and the downing of a French Farman into the sea near Seddulbahir on 30 November by Ali Riza and Orhan's Albatros C.I provided a great boost to the Ottoman squadron's morale. This was also the front where Hans-Joachim Buddeke, called El Shahin or "The Hawk" by the Turks, served in No. 6. Squadron late in 1915. He was then sent back to the Western Front to join Boelcke's elite Jasta 2, being replaced in Turkey by another highly successful German fighter pilot, Theo Croneiss. Though the British finally evacuated Gallipoli on 9 January 1916 they maintained a threatening naval presence, so, only four months after leaving, Buddeke was back over the Dardanelles, achieving further successes in 1916. He was then sent to the Western Front yet again, and was killed on 22nd March 1918. Meanwhile the Ottoman No. 1 Squadron remained at Çanakkale from January to July 1916 before being pulled back to its main base at Galata.

The first numbered Ottoman squadron was formed in January 1915 but, as the war continued, many more would be created. In 1917 they varied in strength from a single aircraft with two pilots and two observers, to having twenty-two aircraft with thirteen pilots and thirteen observers. By the end of the war there were eighteen Ottoman Bölükler or squadrons in existence, again varying in strength from a single pilot and no observer to twelve pilots and eighteen observers. These Ottoman Army air units operated from no fewer than sixty-six different airfields during the war, four of them located in partially occupied but neutral Persia (Iran) while three were in occupied enemy territory (Egypt and Russia).

The Ottoman Army's difficulties in supporting ground forces and their attached aviation units on any front other than Gallipoli were huge. For example, the normal overland transport time from the capital to Iraq varied between two and six weeks according to the season. From Constantinople to Palestine and Syria it could vary from one to three weeks.

On the other hand, the Turkish aviation historian Bulent Yilmazer has described the Ottomans' use of their very limited and extremely overstretched air assets during the First World War as a visionary concept that was ahead of the strategies employed by European air forces at that time. It was, he suggests, a continuation of a long-established belief in far ranging mobile forces, not only for tactical and strategic reconnaissance, but also to harass the enemy. As such it could be seen as a continuation of the traditional role played by Ottoman cavalry. Yilmazer also suggested that, without such a visionary strategy, the more distant fronts might have collapsed early in 1916 rather than holding out for a further two years. In fact, repeated British attacks in Iraq and Palestine, along with Russian assaults on the Caucasus front, were repelled during 1916 and early 1917 by the outnumbered Ottoman armies. The Ottomans were able to do this primarily because of the dogged resistance of Ottoman troops and the skill of their officers, but also through the skilled use of a tiny number of aeroplanes. For example, the contribution of five Pfalz A.II reconnaissance aeroplanes and two Fokker monoplane scouts to the surrender of a substantial British army at Kut in Iraq in April 1916 is difficult to overstate. A year later Baghdad finally fell to the British, but by then the handful of Ottoman aeroplanes in Iraq were worn out.

On the other side of the desert it was only in September 1917, after the British defeated outnumbered German and Ottoman air squadrons in Palestine, that the victorious Third Battle of Gaza enabled British forces to break through to Jerusalem and thereafter into Syria. Even so, the handful of available aeroplanes helped these widely separated fronts endure until the Ottoman Empire's final collapse between September and November 1918 by which time, of course, the Ottoman air units had virtually ceased to exist as fighting formations.

Although German personnel played a vital role in the development of these air forces, as well as in technical support and flying operations, the German contribution should not be exaggerated. During the Great War a big effort had been made to train Ottoman aircrew and support personnel at the San Stefano Flying Schools. Nevertheless, by the end of the conflict most fighter pilots were German while men of Turkish and Arab origin dominated the observer squadrons. There was also one Egyptian under training when the war ended.

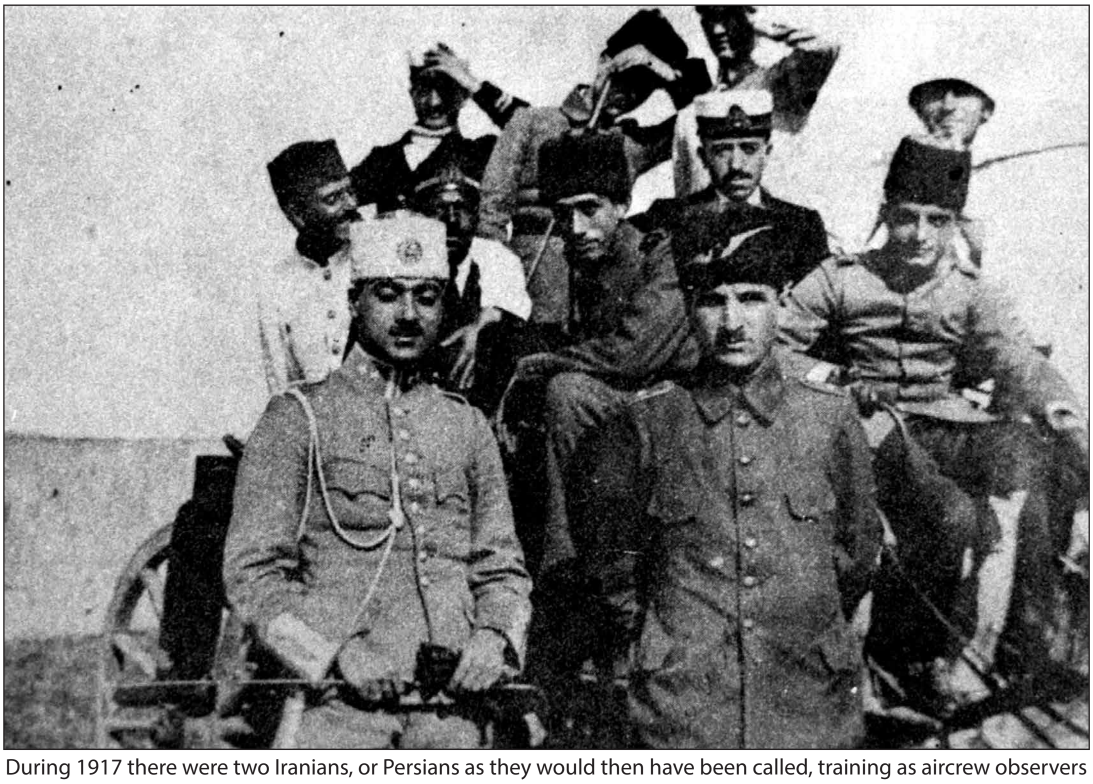
Meanwhile a handful of supposedly neutral Persians (Iranians) had been trained and were even serving operationally by the end of the conflict. There had, in fact, been Iranian political refugees in the Ottoman capital before the First World War. Diverse and not particularly organized, they were mostly radical deputies from Persia's second *Majlis* or parliament who would later be called the "Democratic Caucus". Many had gone into exile between 1909 and 1912, following the downfall of Muhammad Ali Shah when they feared that the country's tentative moves towards democracy would be destroyed. Others had gone to London or Paris. Increasing Tsarist Russian interference in Persia immediately before the Great War led others to flee, especially from amongst a revolutionary movement known as the *Mujahidin* who had been supported by radical Social Democrats. Having been persecuted and hunted down by the police in Tehran and Azerbayjan, some fled to Istanbul. Here a small number got support from the Ottoman authorities but others had to survive by begging on the streets. About one hundred and fifty such ex-*Mujahidin* from Azerbayjan served in the Ottoman Army during the Balkan wars and were rewarded by being given two abandoned Bulgarian villages when eastern Thrace was regained by Ottoman forces during the Second Balkan War.

These and various other factors meant that the Ottoman government hoped to find the Iranian ruled part of Azerbayjan friendly territory after Ottoman troops occupied the area during the Great War. To some extent they were correct and, although the precise origins of the Iranian officers who were trained by the Ottoman Army's flying school at Yeşilköy are unrecorded, they are likely to have come from this region, either before or during the First World War. Meanwhile, during the early part of the conflict, many Iranian democrats, driven by anti-Russian feeling, also hoped to get support from Germany. For their part the Germans hoped that sympathetic forces inside Iran would facilitate the work of German agents who were attempting to stir up anti-Russian and anti-British feelings not only in Iran, but also in Afghanistan and even in India. In January 1916 Iranian opposition factions established a provisional government in Kirmanshah, but with the collapse of German ambitions in Iran, the Ottomans took control of these ambitious if not entirely fanciful plans. Unfortunately most research into this obscure corner of the First World War has focused on its tangled political aspects. Links between the various anti-Allied elements in Iran and those Iranian officers who volunteered for service in the Ottoman Army air force is still unknown, though it presumably existed.

In the Ottoman Empire itself, significant efforts were put into developing an effective naval air service, equipped with German machines plus one captured Russian flying boat. The latter was used against its former owners in the Black Sea during 1918. By the end of the war all three naval squadrons and as well as five army squadrons were commanded by Ottoman officers. Four squadrons were under joint command and six remained under German officers who had been seconded from the German Luftstreitkräft. The story of these units sufficiently impressed some in the Egyptian military hierarchy that, for a brief period, the first Egyptian military aeroplanes carried national markings which were clearly based upon those worn by Ottoman machines in 1914.

The origins of Ottoman aircrew were as varied as the population of the Ottoman Empire itself, though Turkish speakers predominated. Even those born in the Arab and Balkan provinces would have had Turkish as a first language, even if they were fluent in another tongue, which may have been spoken at home. A few came from outside the existing frontiers of the Ottoman Empire, from the lost European provinces. As such, they were almost certainly from *Muhacirin* or refugee families.

In 1914, for example, those based at San Stefano included Infantry First Lt. Mehmet Ali from Serez, which was by now in Greece, while those training to become pilots included Machine-gun First Lts. Hasan Tahsin from Ioannina, also by now in Greece, and Hüseyin Avni from Monastir which was now in Macedonia. Those training at the neighbouring naval air station included


During 1917 there were two Iranians, or Persians as they would then have been called, training as aircrew observers in the Ottoman flying school at Yeşılköy outside Istanbul. One of them was Hüseyin Han, seated on the right and wearing a normal Ottoman black kalpak hat. Next to him is Ahmet Arap, the Ottoman Navy pilot of African heritage who was an instructor at Yeşılköy. Standing on the left at the front, and wearing a light coloured hat, is another Persian officer named Ahmet Han. He may have been the senior Persian (Iranian) liaison officer in Constantinople. Next to him on the right is Ali Riza whose family were refugees from Crete.

The second Iranian training at Yeşılköy was Yüzbaşı Mustafa Han, seen here in the uniform of the Ottoman Army flying units.

Engineer First Captain Apti Recep from Crete, which had been autonomous since 1898 and was lost to the Ottomans in 1908, and Engineer First Captain Ömer Seyit from Constanca, in what was now Romania. However, both these men apparently failed to complete their courses. In 1915 naval men from outside what is now Turkey included Engineer Second Lt. Emin Nihat from Shumen, by then in Bulgaria, who was training to be a pilot. In 1916 Reserve Second Lt. Mir Ahmet from Iran, which was, of course, never part of the Ottoman Empire, came to San Stefano to complete his pilot training. In 1917 Naval Engineer Captains Ahmet Ali from Rhodes, which had been under Italian occupation since 1912, and Arslan Cafer from Thessaloniki, now in Greece, were sent to Germany for additional signals training after having qualified as naval pilots.

In 1917 Lt. Ahmet Fehmi from far distant Yemen, who had earlier served as observer with No. 1 Squadron at Çanakkale during the Gallipoli campaign, was sent for pilot training in Germany. He returned the following year to join No. 9 Squadron defending Istanbul. This was an elite fighter unit stationed at San Stefano to protect the Ottoman capital. It was under the direct control of the Ottoman Air HQ and was equipped with an assortment of Albatros D.IIIs, Halberstadt D.Vs, and Fokker D.Is. Its three Fokker D.VIIs only became operational in the final days of the war, by which time the 9th Squadron even had two captured Russian Nieuport 17 fighters which it used in combat against British bombers. These machines had been found in crates aboard a small Russian ship at the mouth of the river Dnepr on 7 July 1918, along with abundant spares. They were immediately given technical checks before being rushed to defend Constantinople. Here the Nieuport 17s were given new Ottoman national markings and the serial numbers K1 and K2. No. 9 Squadron also had one Albatros C.III for use as a communications aeroplane or hack.

A British Handley Page 0/100 heavy bomber arrived at the RNAS airfield on the Greek island of Limnos on 8 June 1918. At the controls was John Alcock, the future trans-Atlantic pilot. The huge Handley-Page then flew over the Ottoman capital unhindered for thirty-five minutes, dropping twelve 112 lb bombs which mostly fell on residential areas. One of the Greek naval aeroplanes which escorted the bomber failed to return from this mission, though the Ottomans did not claim its destruction. The Handley-Page 0/100 subsequently attacked Adrianople (Edirne) on the night of 2-3 September. However, it suffered engine failure on a subsequent mission during the night of 30 September – 1 October, forcing Alcock to ditch into the sea. He and the other two crew members spent the remainder of the war as “guests of the Turks”.

The 9th Ottoman squadron could do virtually nothing against such raids, but following the loss of Alcock’s Handley-Page, smaller British bombers focussed on the strategic railway from Constantinople to Europe. Not until the night of 20-21 September did raids on the Ottoman capital and the airbase at San Stefano resume. They were carried out by British and Greek aircraft, one Greek Farman coming down in the sea with its crew of Fragou and Tsirigotis being captured.

The last days of the war saw a steep increase in such raids, putting psychological pressure on the Ottoman government before and during armistice negotiations. On 18 October 1918, the aerodrome at San Stefano was attacked twice. Two pilots from the 9th Squadron, Sergeant Major Vecihi in a Nieuport 17 and Sergeant Major Halil in an Albatros D.III, rose to the challenge but Vecihi could not engage because his Nieuport’s gun jammed, though Halil did fire on the bombers. Halil and the German pilot Max Suchin, both in Albatros D.IIIs, later took off to engage a second British attack but neither reached the enemy.

On 25 October five British aircraft again approached Constantinople, this time coming from the north-west. At 1315 hours, five of the 9th Squadron’s scouts led by their commander Capt. Fâzil in an Albatros D.III rose to the new challenge. With him were Vecihi in a Nieuport, and Suchin in an old Halberstadt D.V, plus Kretzner and Dickmar in two of the newly operational Fokker D.VIIs. The latter were fastest and so led the Ottoman aircraft northwards in search of their enemy. Technical problems soon forced Suchin’s Halberstadt to turn back but, after a great deal of searching, British aeroplanes were sighted at around 1445. Before they could be engaged, Vecihi’s Nieuport ran out of fuel and had to land.

Fâzil now led the remaining Ottoman fighters against the five British DH.9s which defended themselves with mutually supporting fire. Close to the Kızkulesi (Virgin’s Tower), which marked the southern entrance to the Bosporus, the Ottoman pilots pressed home their attack at relatively low altitude. One enemy observer was killed and another wounded, but in return Capt. Fâzil was hit twice in the chest and once in the hand. At that point, the British bombers split up. Still harried by the Ottomans, the first three DH.9s machine-gunned the suburb of Haydarpaşa before heading back towards the Dardanelles where they were reportedly also attacked by aircraft from the Ottoman 6th Squadron. The wounded Fâzil managed to get his Albatros back to San Stefano and was taken to hospital. The damaged British DH.9 which came down outside the city was soon displayed in Constantinople where it was photographed with the pilots of the 9th Squadron and two young Turkish ladies.

A significantly larger number of officers had been selected for training in 1917 and they again included men from outside the Turkish heartland. First Lt. Hüseyin Hüsnü was from the Italian occupied island of Kos, Artillery Second Lt. Ferit was from Syria and he was training as an observer at Yeşilköy 1917. First Lt. Hüseyin Han and Capt. Mustafa Han were both from Iran, Second Lt. Hasan Hulki originally came from Crete, First Lt. Fazil from Baghdad in Iraq and First Lt. Mehmet Halit from Homs in Syria may actually have started training as an observer late in 1916. Fazil may not have graduated before the war ended, but First Lt. Mehmet Halit from Homs was certainly an observer with No. 2 Squadron in 1918. Based in Tikrit until the Ottoman front collapsed in Iraq, No. 2 was a mixed unit with four two-seater AEG C.IVs, a single Albatros C.III and a single Rumpler C.I for reconnaissance, plus five Halberstadt D.V single-seater scouts. The first naval officer born in an Arab country to train as Ottoman aircrew seems to have been Naval Executive Lt. Fahrettin Naci from Tripoli in Libya (Trablus al-Gharb) who was training as an observer in 1917 but may have failed the course as he was not mentioned again.

The numbers of such men declined somewhat in 1918 when the Ottoman Empire was tottering to its fall. However, the trainee observers included Cavalry First Lt. Abdullah who had been born in Egypt in 1898. The son of Mahmut Bey and Celile Hanım, he was educated to speak both English and Persian and graduated from the Military College in 1915. Though the First World War ended before Lt. Abdullah qualified as an observer, the emergence of the new Turkish Air Force after the war enabled him to continue training. This he did from 15 July 1919 until 25 December 1920. Lt. Abdullah also adopted the Turkish family name of Dürrühan when Mustafa Kemal Ataturk, the first President of the Turkish Republic, decreed that the citizens of the new Turkey must have "modern" European style surnames. Thereafter, Egyptian born Abdullah Dürrühan enjoyed steady progress through the ranks of the Turkish Air Force before retiring in 1956 with the rank of Colonel.

By 1918 Artillery Second Lt. Ferit from Syria was an observer in No. 4 Bölük (squadron) based as Dara'a and Amman. Its main task was to watch and harass the forces of the Arab Revolt as they fought their way up from the south. No. 4 Sq's equipment consisted of an Albatros C.III which, however, crashed in March 1918, and three AEG C.IVs. Meanwhile the pilots of the 14th Bölük included Capt. Mustafa Han and First Lt. Hüseyin Han who were both from Iran, and First Lt. Ziya who may have been from Kosovo; all three having learned to fly the previous year.

These brave pilots and observers were barely remembered after the end of the First World War in 1918, but one Egyptian officer, who was also a close member of Egypt's ruling family, not only remained in the public eye throughout his life but used his early experience of air warfare to further the development of the Egyptian Air Force. This was Prince Abbas Halim who was also known as *Nabil* or *Sharif* Abbas Halim. He had been born in Alexandria in 1897, the son of Prince Ibrahim Halim and thus a descendant of Muhammad Ali who founded the Egyptian ruling dynasty at the start of the 19th century. However, Abbas Halim's father, Prince Ibrahim, divorced his first wife after their little daughter died. He then married a German lady with whom had another daughter and a son. This family's connections with the Ottoman Army also remained strong, with one of Abbas Halim's first cousins being an Ottoman officer during the First World War.

Prince Abbas Halim himself went to school and military academy in Germany before joining a prestigious Prussian uhlan regiment, in which he was still serving when the First World War broke out. This regiment included a number of foreign aristocrats and minor royals. However, like so many other socially elite military formations, its officers were not always very disciplined. According to the Egyptian Prince's daughter, Princess Nevine, Abbas Halim was late for inspection one morning after a "long night", so he just threw a greatcoat over his evening clothes. German Crown Prince Wilhelm noticed this immediately and Prince Abbas Halim found himself in trouble.

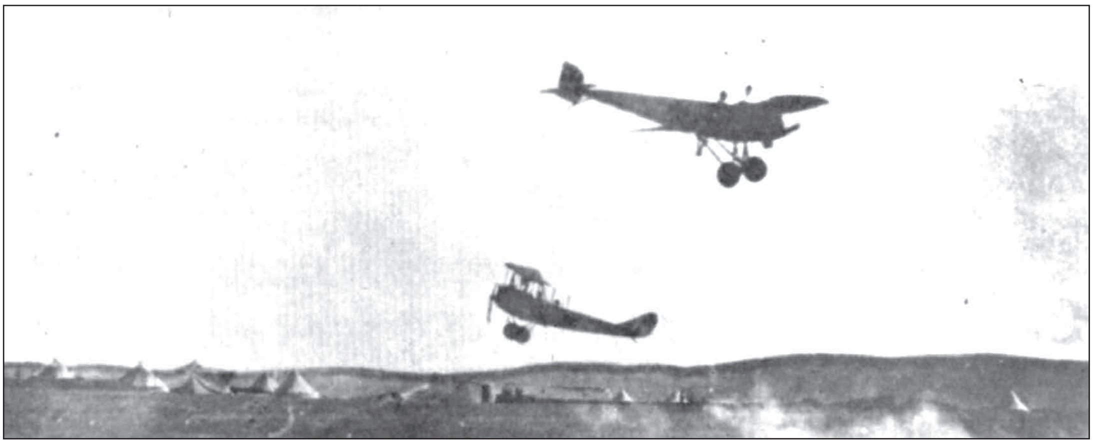
Abbas Halim subsequently fought on the Eastern Front against Russia, where he was wounded twice, once by a shell fragment and secondly and more seriously when shot in the right arm. German Army doctors saved the Prince's arm but Abbas Halim could never again bend it properly. According to his daughter, "when eating or lighting a cigarette his arm stuck out awkwardly. Some silly snobs thought it was a new affectation and imitated him to his unholy amusement". Such an injury surely meant that Prince Abbas Halim could not have been a "fighter pilot", as some sources maintain. In fact, one photograph of Prince Abbas Halim in uniform at this time shows him wearing a German Luftstretkräft observer's badge, not a pilot's badge. Nevine Abbas Halim merely states that her father served in the Ottoman air arm later in the war. Other photographs show the Egyptian Prince in Ottoman uniform but, as there appears to be no record of Abbas Halim being attached to an Ottoman squadron, his role may have been on the staff. Perhaps his previous experience in Germany enabled him to serve as a liaison officer between Ottoman and German commanders in the Middle East.

Oddly enough, while Abbas Halim was serving in the German and Ottoman Armies, his teenage future wife Tawhida Yeghen (born in 1901) was flirting with Allied soldiers in Cairo. As she later told her daughter; "There was a war on and Cairo and Alexandria were overflowing with good looking soldiers. The Australians used to exercise their horses around Garden City (in Cairo) and I would hang out of the windows to watch them go by, purposely loosening my long light-brown hair. The men on horseback would always look up at the windows and blow kisses and I would be thrilled at having done something so illicit". Later in life Prince Abbas Halim would establish boxing and sports clubs in Egypt, lead the Egyptian Automobile Club and became a labour activist, frequently clashing not only with the British but also with the Egyptian authorities.

The British invasion of Ottoman Palestine stalled, and would remain stalled with British defeats in the First (26 March 1917) and Second (19 April 1917) Battles of Gaza. In fact, the Allies were only able to advance following victory at the Third Battle of Gaza (31 October to 7 November 1917). By then, however, the strategic situation in the Middle East had been fundamentally changed by what became known as the Great Arab Revolt in June 1916.

Husain Ibn Ali was the *Sharif* or autonomous ruler of the Hijaz province of western Arabia which included the two Muslim Holy Cities of Mecca and Madina. He had apparently promised the Ottoman government that he would support their attempt to seize or block the Suez Canal in Egypt. This the Sharif Husain failed to do, but nevertheless he managed to smooth over a resulting dispute with Constantinople. The Arab uprising against the Ottoman Sultan actually began on 5 June 1916 and was officially declared three days later with a formal alliance between the Sharif, Britain and France. The Allied powers also agreed to supply Sharif Husain Ibn Ali with a considerable amount of money.

At that time, Ottoman garrisons in the Hijaz included infantry, artillery, a local gendarmerie and Arab tribal auxiliaries. It did not, of course, include any air support, despite the fact that British aircraft had already flown over the Arabian port of Jiddah. Nevertheless, these forces were considered capable of dealing with the sort of tribal unrest that had recently seen the hills around Mecca overrun by Arab insurgents. Ottoman confidence was promptly undermined by the Arab Revolt's investment of Mecca and the surrender of its starving garrison after a month-long siege, along with the fall of Jiddah and some other smaller outposts. Only in Madina did the Ottoman commander Fahrettin Pasha hold out with two battalions of elite Ottoman Guards and two regiments of infantry. In fact, he even managed a counter-attack, retaking a few locations.



A Pfalz E.II and a Rumpler C.Ia of Paşa Flg. Abt. 300 take off for a display of mock combat on 22 May 1916. Their audience would include Germans, Turks, Arabs and probably also Austro-Hungarians.

A line-up of newly arrived Paşa squadron Rumpler C.Ia at Beersheba in Palestine in May 1916, still with protective coverings over their engines from the arduous journey by train and road from Germany.

Two unidentified, solar topee-wearing members of Paşa 300 squadron next to their Rumpler C.Ia in Palestine. (Ole Nikolajsen archive)

Fahrettin Pasha's position was still linked to the main Ottoman forces in Syria by the famous and very new Damascus-Hijaz Railway. This, however, was vulnerable to attack by Arab irregulars. Small garrisons could be put in the stations along this railway but they themselves were vulnerable to Arab attack. Furthermore, the scratch force hurriedly formed in 1916 to defend the railway line consisted of only one infantry regiment and two reserve regiments with limited capability, plus a few smaller regular and volunteer units. It was poorly equipped and could not expect much support from the main Ottoman Fourth Army in Syria. In fact the Ottoman force in the Hijaz would have to rely on its own meagre resources.

What Fahrettin Pasha most needed was reliable information from wide-ranging reconnaissance. The answer lay with the Ottoman Army's tiny new air arm. A shipment of Pfalz A.II two-seater parasol monoplanes had recently arrived in Constantinople from Germany. These were basically copies of the French Morane-Saulnier Type L parasols which the Ottoman Government had ordered shortly before the First World War, but had not received. It is a measure of the political and cultural importance of the loss of the Holy City of Mecca and the potential loss of the almost as important Holy City of Madina that the Ottoman High Command changed its original plan to send the 3rd Bölük to the Caucasus front and instead sent it to Arabia. Pfalz A.IIs had already been used to good effect against the British in southern Iraq, in both reconnaissance and bombing missions, but in the even more extreme climatic conditions of the Hijaz they would prove less effective. The handling characteristics of the Pfalz A.II were also essentially the same as those of the Morane Type L "Parasol". Neither were easy to fly, having what French and British pilots described as oversensitive elevators. In fact they were regarded as "death-traps" by some Allied pilots; unfortunately the opinions of Ottoman or German pilots do not seem to have been recorded.

Captain Cemil was put in command from June until October 1916 with orders to get the 3rd Bölük operational and take it to the Hijaz. His first pilots were First Lt. Hasan Rifat, and Second Lts. Ibrahim Orhan and Şakir Hazım. No observers had yet been appointed. These men had recently returned from pilot training in Germany but only Cemil had experience of the Pfalz A.II parasol, in which he had made ten flights. Hasan Rifat was the most inexperienced while Orhan and Şakir had flown as observers with the 1st Bölük over the Dardanelles during the Gallipoli Campaign.

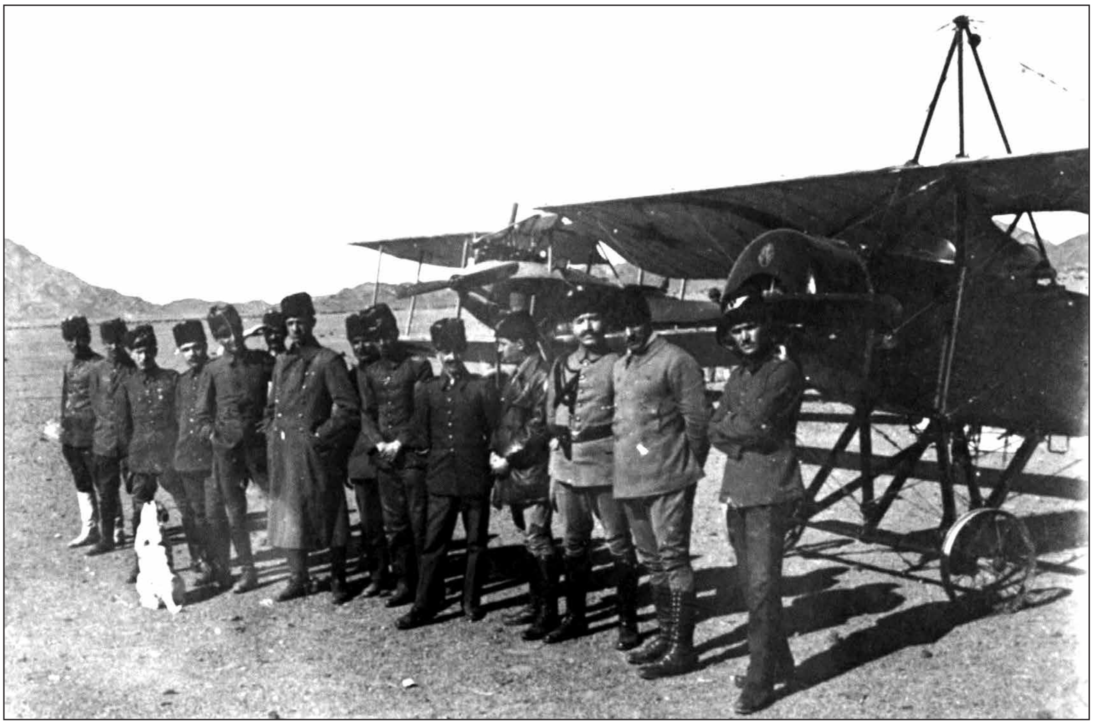
Lt. Orhan was now sent ahead to select a suitable landing ground as well as accommodation for the men. He was also told to prepare a report about local weather conditions. These observations were sent to Fahrettin Pasha who, on hearing what Orhan had to say, informed the air headquarters at San Stefano that Pfalz aircraft could not perform their duties during the hottest weather because they had air cooled engines. Furthermore the fearsomely hot weather would limit the weight of bombs the aircraft could carry while their short range would hamper reconnaissance in the direction of enemy-held Mecca. More potent aeroplanes were required. The reply from Major Erich Serno, the German commanding officer of Ottoman aviation, was somewhat abrupt, "As there are no other aeroplanes or aviators available, the parasol aircraft that were actually acquired for the Second Army (facing the Russians in the Caucasus) and the aviators who have received training in Germany have been put at your disposal".

Faced with these facts, Captain Cemil collected the three available Pfalz A.IIs which had only just completed their acceptance trials, plus forty-one crates of spares, two portable hangars, fifty bombs, and 20,000 fletchettes. He was also given twenty newly enlisted soldiers who did not yet have any military training, plus an NCO named Sabri from the Army Reserve. These men he sent on their way to the Hijaz on 23 June 1916, following himself on 3 July with two more Pfalz A.IIs, some more equipment and the remainder of his unit.

The entire squadron were, of course, supposed to be Muslim as it would have been culturally impossible to send any of the Ottoman Empire's non-Muslim soldiers to the Islamic Holy Land of the Hijaz. Nevertheless, there was almost a crisis when it was discovered that two German mechanics named Hans and Ditmar had been attached to the 3rd Bölük. They actually set out for Arabia and reached Damascus before the Chief of Staff of the Fourth Army noticed their presence and insisted that Hans and Ditmar immediately be sent back.

Mülazım Evvel (1st Lt.) Hasan Rifat was the least experienced of the first three Ottoman pilots of No. 3 Bölük, fighting against Lawrence of Arabia and the Arab Revolt. He nevertheless flew numerous missions in a fragile Pfalz A.II in the unforgiving climate and geography of the Hijaz.

Having pressed ahead of the remainder of the 3rd Bölük who were making slower progress, Capt. Cemil arrived in Damascus and went straight to Cemal Pasha's headquarters on 10 July. Four days later Cemil flew from Beersheba to al-Arish where the German 300th Pasha Squadron was based. He to learn how the Germans were dealing with the problems of desert sandstorms. Unfortunately Cemil lacked a proper flying helmet and as a result suffered temporary deafness for some time after this flight.



A Pfalz A.II and an Albatros C.III of the Ottoman No. 3 Bölük at the aerodrome outside Madina, with officers of this unit. Three men have the wings of the Ottoman air units on their lamb-skin kalpak hats. They appear to be Saim on the far right, Rifat sixth from right, and Orhan third from the left. The Pfalz parasol also has non-standard identification markings consisting of a dark, probably black rather than red, crescent and stars beneath its wings. In addition, the Pfalz also lacks tyres on its wheels. (Ole Nikolajsen archive)

Of perhaps greater significance were the problems Capt. Cemil faced in the headquarters of the Fourth Army. Ordered to paint his aircraft with the old red and white Ottoman national insignia, he pointed out that this was against the new regulations. Either the staff officers in Syria were unaware that the new markings had been in use since early 1915, or more likely they thought the original insignia, based on the Ottoman flag was more suitable for operations in Arab territory; especially in such a culturally sensitive region as the Hijaz. Written sources state that Cemil refused to add red markings and on 1 August 1916 his position was confirmed by an order from Constantinople. However, one of the very few available photographs of an Ottoman Pfalz A.II in Arabia show a dark, either black or red, crescent and star beneath the wing.

Cemil also considered that the abrupt dismissal of the two German mechanics, who had been bundled back to San Stefano in an almost insulting manner, would annoy the Ottoman air force's senior German officers and that he himself might be blamed. In this he was correct, though by holding onto a copy of the order, which had been given by the Fourth Army staff, Cemil was able to prove that he had not given it. By now personality clashes between Cemil and some of the Ottoman staff in Damascus were becoming a serious problem. Indeed, at one point the staff officers prohibited direct contact between Cemil and the aviation headquarters in

Constantinople, a situation that the commander of the 3rd Bölük was only able to reverse when he reached Madina.

Getting the squadron to Madina was no easier as Çamal Pasha, Governor of Syria and Commander of the Fourth Army, wanted three of its aeroplanes to be held back to establish a temporary unit at Dara'a to patrol the Hawran (the southernmost part of modern Syria and northern Jordan). Several flights were made over this area by Lt. Şakir during August but mechanical failures and bad weather rendered them ineffective. Then, on 10 August, Lt. Orhan fainted while returning from a flight in particularly hot weather and crashed. He and his observer were injured and were sent to hospital in Damascus. The fuselage of the crashed Pfalz was written off but Capt. Cemil sent two men to salvage its engine and wings. Unfortunately, hostile Arab tribesmen appeared. The escorting soldiers fled while the mechanic and his assistant were killed and their equipment stolen. It was not a good start.

Cemil finally arrived in Madina at the end of August and set about establishing his aerodrome about 6 kms east of the Holy City. The rest of the squadron arrived on 10 September 1916 and within a short time the pilots were making short flights around the area. On 3 October, a Pfalz A.II (serial number P7) flown by Lt. Fâzil took off from Madina to make the first aerial reconnaissance of the Hijaz Railway. He flew along the railway for an hour and ten minutes, observing bridges and stations, saw no damage but did report that railway labourers carrying out routine maintenance.

On 10 October Pfalz number P9, flown by Lts. Şakir and Kâmil, was sent to a forward airstrip at the oasis of Bir al-Dirwi. This was reached after a flight of just under two and a half hours, but the suggested landing ground was found to be too small and was covered by sharp stones. The following day Pfalz number P 9, again flown by Şakir and Kâmil, was sent to find and bomb enemy positions at the three oases of Bir al-Abbas, Bir al-Rur and Bir al-Atta. Loaded with four bombs, the aeroplane took an hour to climb to 950 meters and still did not have enough altitude to get over the mountains which barred its flight to the oases. So the pilot decided to try again, carrying only four small and two larger bombs, but leaving his observer on the ground.

On 13 October Lt. Şakir was in action again in Pfalz number P 9. This time he dropped two 12 kg bombs on enemy positions near wells which had been occupied by Arab "rebels". He then spotted dark Bedouin tents at the junction of rocky valleys between Bir al-Dirwi and Bir al-Abbas, as well as white tents in the hills. The latter suggested the presence of regular troops, Egyptians or Allied advisors with the Arab Revolt. The following day Pfalz A.II number P 10, flown by Lt. Fâzil, undertook a reconnaissance between Madina and Bir al-Dirwi. However, the hot atmosphere again meant that it took half an hour to reach an altitude of 1,000 meters.

There was then a pause in Ottoman air activity until 22 October when Lt. Fâzil with Lt. Şakir as his observer took off in Pfalz number P 7, to drop three bombs and 200 fletchettes on the enemy. Next day Pfalz number P 7, again flown by Fâzil, flew a reconnaissance over the Bir al-Dirwi, Bir al-Abbas and Hadidah oases. The following day, 24 October, Fâzil took off in Pfalz P 7 to carry out another reconnaissance over the same three oases plus Muzmin al-Gazali. He had been ordered to drop bombs on enemy who were believed to be hiding in date plantations at Hadidah and, despite seeing no significant targets, he dropped two bombs anyway. On the 25, Fâzil flew Pfalz P 10 to reconnoitre the road between Madina and Bir al-Dirwi, but again saw nothing of note. This time the flight only lasted thirty-five minutes.

After a day's rest the squadron returned to action on 27 October with Pfalz P 7, flown by Lt. Fâzil with Lt. Rifat as his observer, undertaking a lengthy reconnaissance over Madina, Bir al-Dirwi, Hadidah and the town of al-Hamra. This appears to have been the first time that the aircrew reported being fired at by anti-aircraft guns. Perhaps the Arab Revolt's Egyptian advisor, Gen. Aziz al-Masry, had encouraged the Arab Army's few artillerymen to use one of their mountain pieces as an anti-aircraft gun, just as he had earlier done in Libya. Fâzil and Rifat then flew to the Red Sea coast before returning after two and a half hours in the air. The following day Fâzil took off in Pfalz P 7 to look for the gun or guns which had fired at him the previous day. However, flying at 1,200 metres, he only saw a few Bedouin tents. To complete the intensive flying of October 1916, Fâzil undertook further reconnaissance missions on the 29, 30 and 31.

Another pilot in No. 3 Bölük was Yüzbaşı (Capt.) Saim, the commander of this small unit based at Madina (Medina) in the Hijaz. He was killed in a flying accident on 26 November 1916.

Meanwhile arguments between the Ottoman airmen and Ottoman Army in the Hijaz had got so bad during October that the air headquarters at San Stefano asked Lt. Fâzil to send them a direct report on the 3rd Bölük. He confirmed the presence of four Pfalz A.IIs (P 6, P 7, P 9 and P 10) plus two spare engines, though one of the aeroplanes' engines was already unserviceable because of harsh desert conditions. Fâzil also suggested that his squadron needed at least two spare engines always available, which he therefore requested from San Stefano.

Meanwhile, the opinion that the Pfalz A.II was unsuitable for conditions in the Hijaz had spread to the high command in Syria. Here Çamal Pasha personally declared that any aerial mishaps would strengthen rebel morale and that the flying unit in the Hijaz should "have first class aircraft or no aircraft at all". What the Pasha really wanted was three sturdy biplanes, if necessary drawn from the German 300th Pasha Squadron at al-Arish. However, any accompanying German aircrew could not under any circumstances enter the sacred town of Madina and would have to wear Ottoman uniforms at all times. It was a radical suggestion but had the desired effect; Fâzil having four Albatros C.III aeroplanes, plus spares and all other necessary equipment, allocated to his squadron even before he got back to Madina. In the event, only two could be made available

A damaged Albatros C. III of the Ottoman No. 3 Bölük at Madina in the Hijaz. However, it is almost certainly not serial number AK 28 which crashed and was apparently written off, killing the squadron's commander Yüzbaşı Saim, on 26 November 1916. (Ole Nikolajsen archive)

before the end of the year; these being serial numbers AK 28 (ex-German serial 2282/16) and AK 30 (ex-German serial 2285/16).

It is now generally agreed that the Ottoman pilots, observers and mechanics who fought against the Arab Revolt were all young and inexperienced. Furthermore, they had been hurriedly trained, often in Germany during a northern European winter. Some of them had then spent several months sitting idle at San Stefano, without flying, before suddenly being sent to Arabia in the height of summer. There the tasks they were given were far from easy. As Fâzil reported back to his superiors;

> The colour and shape of the Bedouin tents closely resemble the rugged rocky terrain around here. It is very difficult to observe, locate and bomb the Bedouin who do not have permanent quarters and are always on the move.... The temperature never goes below 23 degrees centigrade. The dawn hours are regarded as the best for flying (but) even then, because of the natural features of the land, the sun heats the air so quickly that suitable flying conditions only last about twenty minutes. The air above 500 meters is constantly hot and rarefied.

Fâzil was also critical of Lt. Cemil and would, in fact, be ordered to take over command of No. 3 Bölük at the end of December 1916.

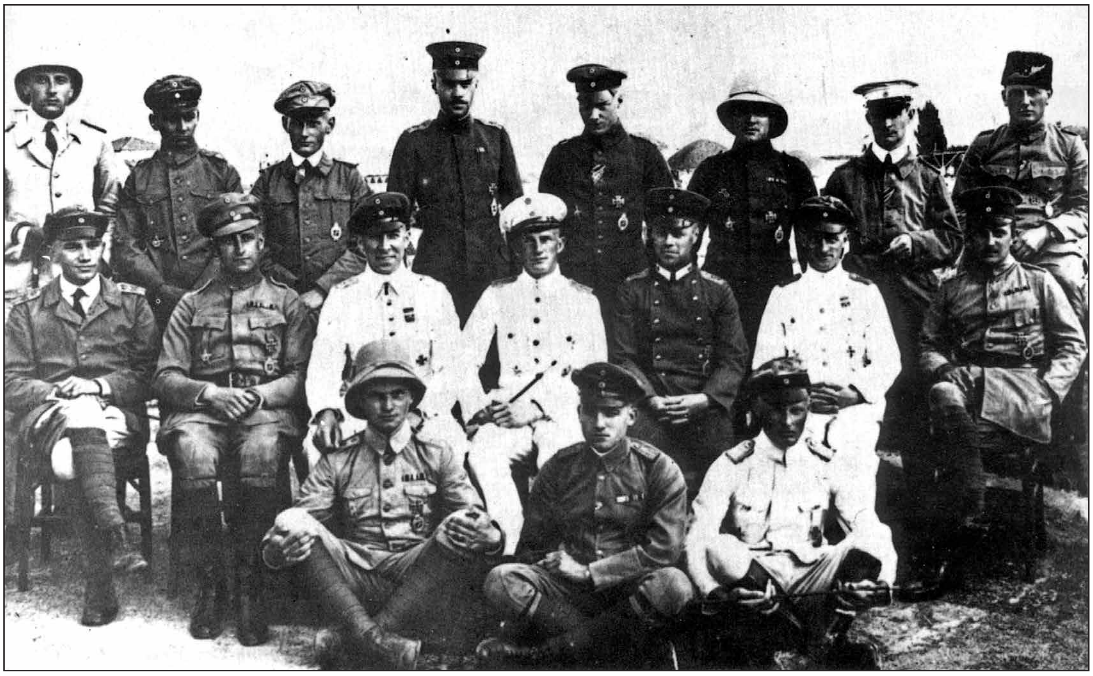
Meanwhile, at the start of November, the headquarters of the 3rd Bölük was relocated to Bir al-Abbas which Ottoman forces had retaken from the enemy, while Lt. Saim was appointed commander of the small detachment of aeroplanes which remained at Madina. The first sorties from the new aerodrome at Bir al-Abbas were flown on 6 and 7 November. The latter was undertaken by Lt. Şakir in Pfalz number P 7 who had been sent to locate Arab forces commanded the Emir Faisal, the son of Sharif Husain, and to bomb them. Not seeing anything significant between Jadida and the Wadi Alab, Şakir did spot a herd of camels near the Wadi Alab so dropped a bomb on them, followed by another bomb aimed at the far end of a date plantation. Next, Şakir spotted the smoke of cooking fires coming from the supposedly deserted oasis town. This time, however, the release mechanism failed and he was only able to drop half of the total of 60 kgs of bombs that he carried.

According to T.E. Lawrence "of Arabia" this first appearance of Ottoman aircraft in the area temporarily demoralised the first units of Arab regular troops which Gen. Aziz al-Masry was forming at the little port of Rabigh. It is perhaps worth pointing out that the Pfalz A.II monoplanes which undertook these early missions, and which were now wearing new Ottoman national markings of a solid black square, would be represented in the famous film *Lawrence of Arabia* by biplane Tiger Moths bearing pre-war red and white Ottoman national markings.

On 8 November Lt. Fâzil in Pfalz number P 10 made another reconnaissance over the Wadi Alab and dropped three bombs on three large Bedouin tents. That same day Lt. Şakir in Pfalz P 7 dropped four 15 kg bombs and four smaller 5 kg bombs on tents near the newly fortified Bir al-Sait wells. Next day Lt. Fâzil in Pfalz P 10 was ordered to reconnoitre positions held by the Emir Faisal's troops. Nothing was seen at Bir al-Sait but Fâzil dropped three bombs on al-Hamra. This intensive period of daily reconnaissance and bombing continued on the 10 when Lt. Fâzil flew over the same region that Lt. Şakir had studied earlier. On 11 November Fâzil flew Pfalz number P 10 back to Madina where his machine remained until the 18 when he flew it back to Bir al-Abbas with Şakir as his observer or passenger. Three further flights were made between Bir al-Abbas and Madina on 19 and 23 November, and again on 1 December.

Late in November 1916, Albatros C.IIIs at last arrived in the Hijaz and on the 26 one of these (number AK 28) flown by Lt. Saim with Lt. Ahmet Kâmil as his observer was sent to the forward aerodrome at Bir al-Abbas. But during their landing approach, at about 150 m. above the ground, the aircraft was caught in a sudden crosswind, went a spin and crashed. Lt. Saim was killed while Lt. Ahmet Kâmil suffered several broken bones.

For several weeks, the intensive task of reconnaissance remained with the Pfalz A.II parasols. On 4 December, Pfalz number P 7 flown by Lt. Fâzil undertook reconnaissance over the Wadi Alab and Jadida. The pilot made sketch maps of the tracks linking various settlements in this area during his two hour flight. On 9 December, the same aeroplane and pilot, though now with Lt. Şakir as observer, flew back to Madina, making a reconnaissance of the route as they



The pilots and observers of the German Flieger Abteilung 300 Paşa, photographed at Ramlah in Palestine in 1917. Their Commanding Officer from January to March was Haupt. Hellmuth Felmy. He is believed to be seated third from the left. Felmy would be sentenced to fifteen years imprisonment as a war criminal after the Second World War, but was granted clemency after serving three years. The man on the right, who wears an Ottoman Army air service kalpak, may have been a liaison officer. (Hamshaw Thomas album; via J. Hitchcock)

went. However, nothing unusual was seen. After a few days pause, on 14 December Lts. Fâzil and Şakir flew back in formation in Pfalz numbers P 10 and P 7.

A longer pause now followed before an Albatros C.III, serial number AK 30 flown by Lt. Fâzil with Capt. Nurettin as observer, took off on 27 December to conduct reconnaissance and bombing of the port of Yanbu. However, they had to abort this mission because of thick fog. The same day Lt. Şakir, with Lt. Osman Tayyar as observer, flew Pfalz number P 9 on reconnaissance over Hankiyah. Again they saw nothing of interest, but Osman drew a sketch of the surrounding terrain. The last flight of 1916 was undertaken by Lt. Fâzil in Pfalz number P 7 on 29 December. His orders were to bomb Arab "rebels" around Mijaz, but he was unable to find the target and saw nothing significant.

By the start of 1917, the 3rd Bölük's three serviceable Pfalz A.II parasol monoplanes were worn out and there was only one surviving Albatros C.III (AK 30) on strength. In January, the squadron started to acquire four more Albatros C.IIIs (AK 4, AK 31, AK 40 and AK 72) which were eventually reinforced by three Rumpler C.Is. This type of Rumpler had already proved very effective with the German 300th Pasha Squadron in Palestine. In fact, their serial numbers in Ottoman service, R 1837, R 1847 and R 2627, were their original German numbers with the German prefix C replaced by R for Rumpler. The German "year" suffix (15 in Ottoman records or 16 in German records) was ignored in 3rd Bölük records. The three Rumpler C.Is delivered directly to the 3rd Bölük Army air service during 1917 were given normal Ottoman-style serial numbers RK 1 to RK 3, to distinguish them from previously delivered Rumpler B.Is which had been given serial numbers R 1 to R 18.

However, the 3rd Bölük would soon have to divide its strength between the Hijaz and southern Syria. This was because the Arab Revolt pushed northwards, leaving the Ottoman garrisons in and around Madina increasingly isolated. The German Pasha Squadrons in Palestine (eventually a nominal five of them) were entirely focussed upon facing the growing British threat from Egypt and were eventually supported by the Ottoman 4th Bölük which was moved to Syria in 1918.

British aeroplanes had occasionally operated off the Red Sea coast at an early date, and late in 1916 they established an aerodrome next to the beach at Rabigh. This was defended by Egyptian troops and was also covered by Royal Navy guns. Its existence posed a serious threat to the Ottoman 3rd Bölük which had previous flown unopposed, though under appallingly difficult climatic conditions. Furthermore, until the new machines arrived, No. 3's remaining Albatros number AK 30, flew the most demanding missions. The first of the year was on 14 January when Fâzil and Şakir made a reconnaissance to the east. Next day Lts. Cevdet and Çamal in Albatros number AK 30, accompanied by Şakir and Osman Tayyar in newly arrived Albatros number AK 31, flew an extensive patrol which located and bombed a large and previously unknown rebel Arab position.

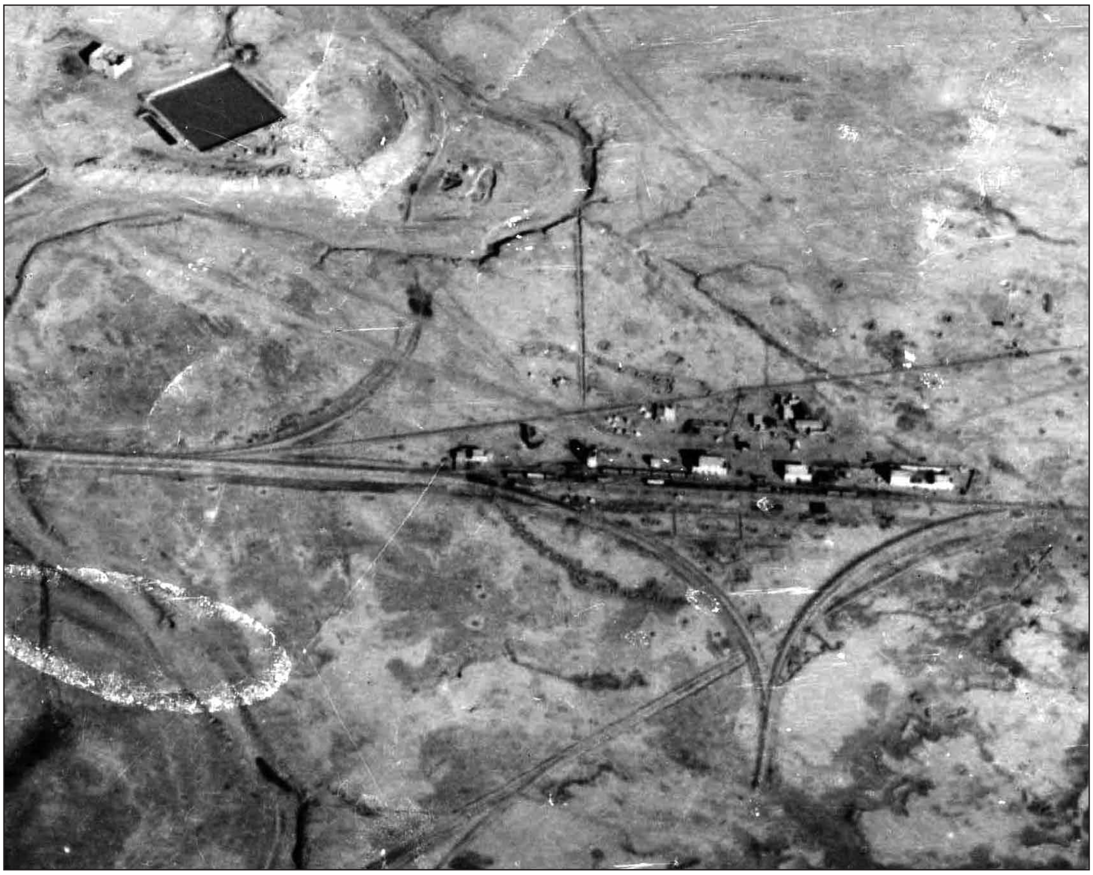
This sort of mission by Albatroses continued through January, while occasional reconnaissance flights were also carried out by the old Pfalz monoplanes, P 7, P 8 and P 9. The last of these appears to have been flown on 28 January 1917, when Lt. Fâzil accompanied Albatros AK 31 which was crewed by Şakir and Osman Tayyar. Pfalz number P 7 was still being used for training sorties until March when it crashed during a test flight by Lt. Şakir. He survived but the aeroplane, which had flown 150 hours since arriving in Madina, had come to the end of the line. Meanwhile the Albatros C.IIIs soldiered on through January, February and March. In some respects, these aeroplanes were taking a more offensive role than previously, especially as the guerrilla forces of the Arab Revolt now made greater efforts to interrupt and destroy the Hijaz Railway linking Madina to Damascus.

The first mention of photographic reconnaissance by the 3rd Bölük in the Hijaz seemed to be on 9 March 1917, though there might have been earlier such missions. The same pattern of activity continued until July but on the 6 Arab tribesmen led by Auda Ibn Tayyi, and advised by T.E. Lawrence, seized the port of Aqaba. As a result the Ottomans no longer controlled any real port in the northern Red Sea. Furthermore, possession of Aqaba meant that the Arab Revolt in the Hijaz could link directly overland with Britain's Egyptian Expeditionary Force in Sinai which was itself facing Ottoman-held Gaza in southern Palestine. It was a major strategic gain for the Allies and was followed by a slackening of pressure by the Arab Revolt upon the effectively isolated Ottoman enclave around Madina. Thereafter Fahrettin Pasha's garrison in this, Islam's second holiest city, was of relatively minor importance. Instead the Arab Revolt's main effort would be directed northwards, with the Arabs' increasingly effective Northern Army containing substantial numbers of regular troops as well as tribal auxiliaries while also enjoying increased support from British and French units.

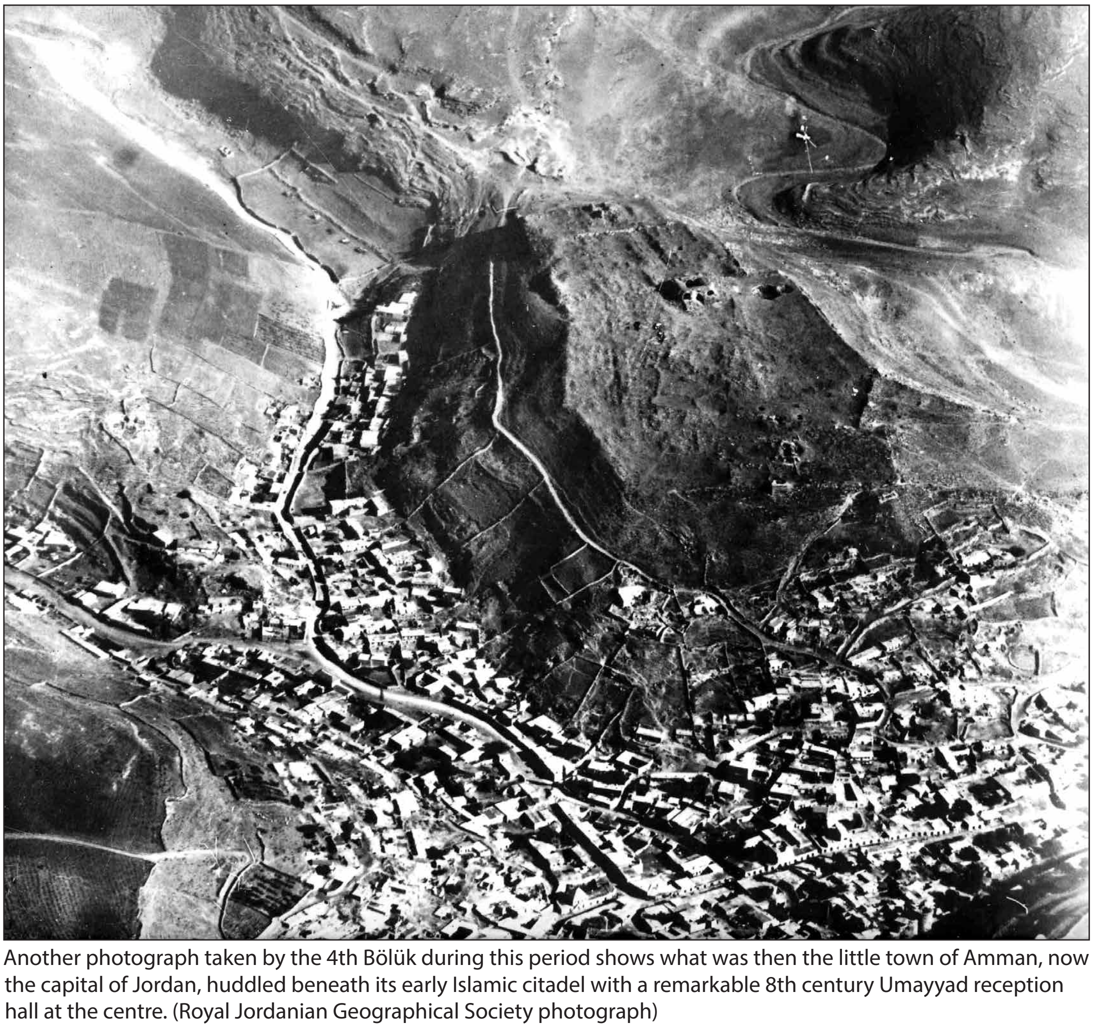
In response, the headquarters of the Ottoman 3rd Bölük was promptly transferred from Madina to Ma'an in what is now southern Jordan. Ma'an was already an important station on the Hijaz Railway linking Damascus and Madina. As a result, only Lt. Orhan with one Albatros C.III and an observer were now left in Madina. The rest of the squadron under Lt. Fâzil went north by train with all its equipment, fighting off an attempt by a large Arab force to stop them by blowing up the now often repaired railway line. The German Pasha Squadron in Palestine also handed over one of its Rumpler C.Is to reinforce No. 3's two Ottoman Rumpler C.Is which had themselves now arrived in Damascus. Meanwhile, the Germans received up to nine newer Rumplers in April.

As soon as they established themselves outside Ma'an, the 3rd Bölük took to the air. Rumpler C.I number R 2627 and Albatros C.IIIs numbers AK 30 and AK 31 made seven sorties between 22 July and 1 August. During the rest of August these aeroplanes were joined by Rumpler C.I number R 1847. This proved to be a busy month for the 3rd Bölük and included a long reconnaissance flight over enemy-held Aqaba and back on the 19. It was undertaken by Lt. Şakir with Lt. Osman Tayyar as observer in Albatros number AK 31. They were in the air for an hour and a half at an altitude of 2,000 m.

On 20 August Fâzil and Osman Tayyar made another reconnaissance as far as the Wadi Musa (close to the world famous archaeological site of Petra, "The Rose Red City half as old as time"). This area formed a vital link between the Arab Revolt in southern Jordan and the British forces which were now penetrating southern Palestine. A number of bombing missions were also flown against Arab Revolt



An aerial photograph of Qatrana railway station, taken by an AEG C.IV of the 4th Bölük of the Ottoman Army air service at 0800 hours on 9 April 1918. (Royal Jordanian Geographical Society photograph)



Another photograph taken by the 4th Bölük during this period shows what was then the little town of Amman, now the capital of Jordan, huddled beneath its early Islamic citadel with a remarkable 8th century Umayyad reception hall at the centre. (Royal Jordanian Geographical Society photograph) positions between Ma'an and Aqaba. On the 26 Lt. Fâzil carried the commander of the Ottoman 8th Corps, Lt. Col. Mustafa Izzet, on a reconnaissance of the battle zone – there being nothing that could be called a "front" in this huge and thinly populated area. They flew aboard Albatros number AK 31. On 31 August Lt. Fâzil took up Lt. Col. Izzat again. Otherwise it was a matter of bombing enemy encampments wherever and whenever they could be attacked.

During September 1917 such bombing was increased, all the sorties being flown by the somewhat aged Albatros C.III number AK 31 and the slightly newer Rumpler C.I number R 1847. Retaliation came on 6 October when two British aeroplanes approached the Ma'an aerodrome from the south-west and dropped twenty-four small bombs, apparently aiming at the 3rd Bölük's hanger which was, however, not damaged. As British aeroplanes became more active, so did the Arab Revolt's attacks on the Hijaz Railway tracks. On 10 October, another enemy bombing raid on the aerodrome killed one soldier and wounded four others. October was just as busy for the 3rd Bölük, especially for Lt. Cevdet with either Lt. Lutfi or Lt. Osman Tayyar as observer, usually flying Rumpler number R 1847. As the weather deteriorated in the uplands of southern Jordan, low cloud meant that some reconnaissance flights had to be made at very low altitude.

On 1 and 2 November 1917, Gen. Allenby's Egyptian Expeditionary Force finally defeated the Ottoman Army in the Third Battle of Gaza and the British were now poised to overrun Palestine. In this increasingly desperate situation the 3rd Bölük, on the other side of the Jordan valley and Wadi Araba, continued flying whenever they could, despite the worsening weather. Not surprisingly, the commander of the Ottoman 8th Army Corps was desperate for information.

The British were also increasingly active in the air. Facing them, the German 300th Pasha Squadrons in Palestine found themselves in an increasingly difficult situation. On 3 November, Cevdet and Lutfi reported seeing an aeroplane which had force-landed in enemy territory to the west while nearby camel-mounted troops were apparently undertaking a rescue. Nine days later Sgt. Hasan Fehmi suffered engine failure while flying a Rumpler C.I from Damascus and had to make a forced landing near Dara'a. The rest of the squadron at Ma'an continued to fly most days, though all missions seems to have been in Rumpler C.I numbered R 1847. Meanwhile, far to the south in the Hijaz, Lt. Orhan was still flying Rumpler number R 2627, making reconnaissance sorties on 22 and 23 November. On the second of these he found a "rebel" camp of some thirty tents which seemed poised to threaten the Mada'in Salih railway station.

Most of the squadron's sorties were nevertheless flown by the main part of the unit at Ma'an and Dara'a. Their two Rumplers carried out reconnaissance sorties from Ma'an while the Albatros (number AK 4) was now stationed at Dara'a. After a mission by Lt. Cevdet on 1 December over Humayma, bad weather seems to have kept them on the ground. It was during this period than Gen. Allenby captured Jerusalem on 9 December. In fact, a storm on the 14 blew down a hanger at Dara'a, damaging one aircraft which was probably Albatros number AK 4. Nevertheless, missions were still flown from Ma'an on the 15, 16, 17, 20, 21 and 22. On December 25 the unit received a "Christmas message", announcing that aircrew based at Dara'a, Ma'an and Madina must now focus all their efforts upon protecting the Hijaz Railway in order to maintain communications between Ottoman forces in Syria and Fahrettin's heroic garrison, still holding out in Madina. Sorties were therefore flown on 27, 28, 29 and 31 December, all apparently by Rumpler number R 1837.

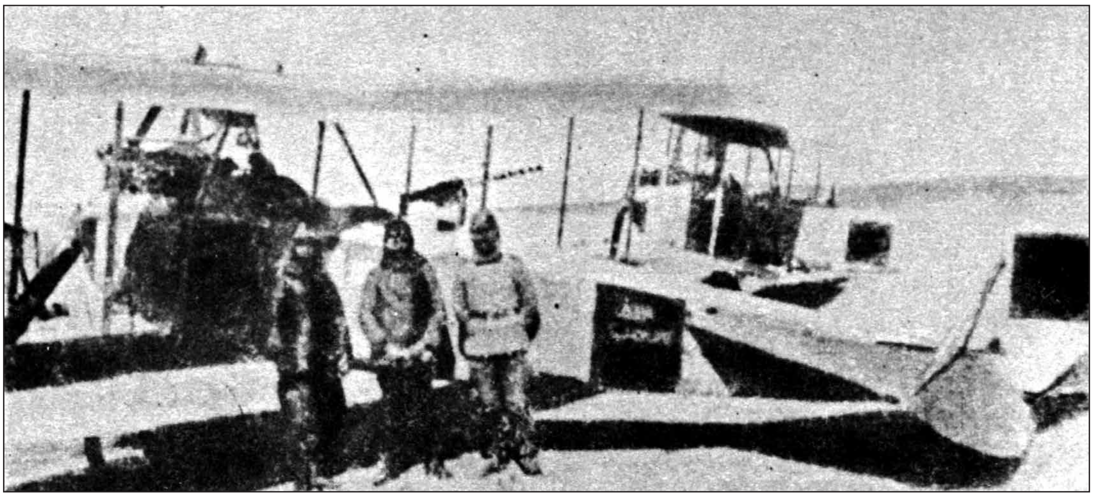
The 3rd Bölük now informed Army Headquarters that it was out of fuel, though this shortage seems to have been dealt with quite quickly. On 3 and 4 January Sgt. Fehmi delivered a new Rumpler C.I (number R 2626) to Dara'a, then flew on to Ma'an by stages on the 7. It was now almost impossible to travel between Madina and Syria while links to the north between Ma'an, Amman and Damascus were increasingly dangerous because the forces of the Arab Revolt threatened the entire Hawran region of what are now northern Jordan and southern Syria. Aeroplanes had to be used to carry urgent messages, with two Rumpler C.Is (number R 2627 which had returned from Madina in the Hijaz, and newly arrived R 2628) joining Albatros C.III number AK 59 at Damascus. There

The officers of the 4th Bölük, at Ma'an in 1918. This unit currently had one Albatros C.III and three AEG C.IVs, with a command staff of three officers who were themselves qualified observers, four pilots including the German Max Suchin, and five operational observers.

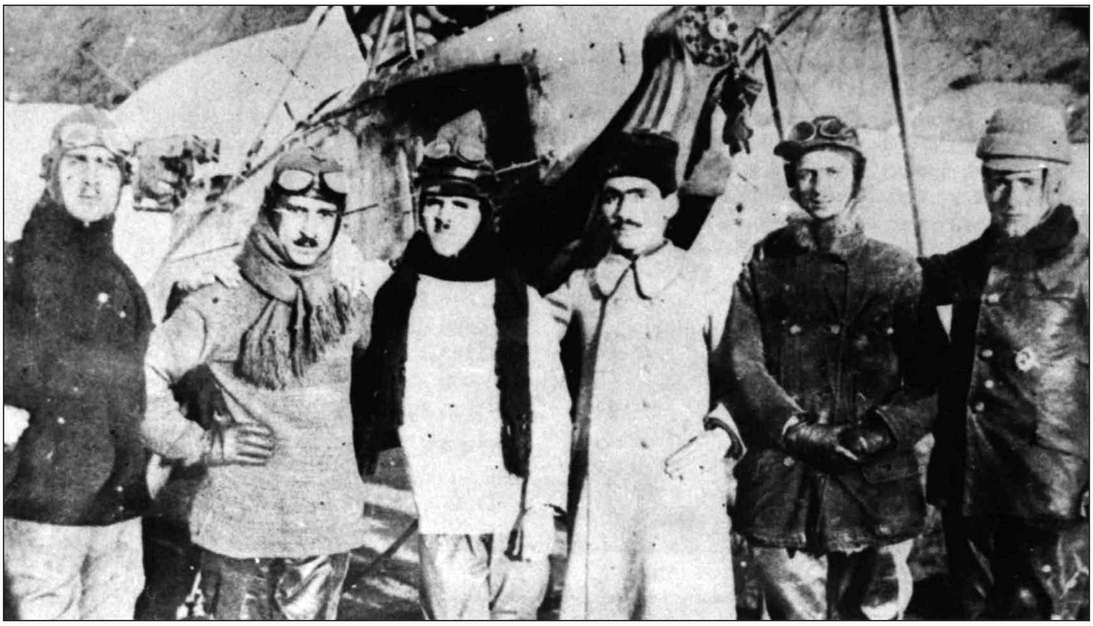
they were under the direct command of the Ottoman Fourth Army HQ. They would also be joined by two more of the squadron's Albatros C.IIIs (AK 4 and AK 31) in April.

Rumpler C.I number R 2627 would later be photographed, apparently at Ma'an on 28 March, with an extract from the Koran written in the rectangular Ottoman national marking on the side of its fuselage. This was from Verse 13 of *Surah Al-Saff* in Islam's Holy Book, and read; *"Nasrun min Allah wa Fathun Qaribun"* which translates as *"Help from God and a speedy victory"*. This text would almost certainly have been added while Rumpler number R 2627 was operating from the Muslim Holy City of Madina during 1917.

Ma'an, like Madina before it, was now in danger of being cut off. So, on 8 January, two Rumpler C.Is took off to reconnoitre the Hawran area, with Lt. Emin Nihat and Sgt. Ismail Zeki flying serial number R 1847 and newly arrived R 1150 respectively. Similar missions were flown on subsequent days by these same aircraft and by Rumpler number R 2626, operating southwards from Dara'a. On 10 January Lt. Col. Izzet again carried out a personal reconnaissance of the area under his command, being flown by Sgt. Fehmi in Rumpler number R 2626.



A Rumpler C.I of the Ottoman 3 Bölük at Ma'an on 28 March 1918. A Koranic inscription written within the black square on its fuselage is from Verse 13 of Islam's Holy Book, probably added while the aeroplane was operating from the Holy City of Madina during 1917. Standing beside the aeroplane are the CO of number 3 Bölük, Yüzbaşı İzettin, pilot Emin Nihat and an unnamed airman. The two Rumplers are almost certainly serial numbers R 2627 and R 1150 which had flown almost daily reconnaissance and bombing sorties against the Arab Northern Army during this period, and would do so again on this day.



Another photograph of officers from the Ottoman 4th Bölük, probably taken in Dara'a very early in 1918. On the left is Hasan Fehmi, who had been obliged to land at Dara'a with a failing engine while on his way to Ma'an in November 1917. The other men are, continuing from the left, pilot Fuat Halim, observer Mazlum who was also part of the three-man command structure, Dr. Kemal Cebbar who was not part of the flying personnel, civilian volunteer pilot Behçet and observer Sıtkı.

The 3rd Bölük flew numerous reconnaissance sorties in difficult weather from Ma'an, in Rumplers numbered R 1837, R 1847 and R 1150, searching for the headquarters of Emir Faisal who was in command of the Arab Northern Army. Nevertheless, despite the Ottoman aircrew's best efforts, the Arabs defeated a substantial Ottoman force near Tafilah, north of Ma'an on 25 January. This was a breakthrough for the increasingly well-organised and well equipped regular troops of the Arab Revolt. Meanwhile, during the last days of January, the 3rd Bölük continued to search for the enemy and harass them whenever possible, even as the Ottoman garrison in Ma'an was in danger of being cut off.

In February 1918, civilian pilot Hüsayin Hüsnü flew training flights in Rumpler C.III number R 2628 at Damascus, while number R 2626 flown by Lt Fehmi did the same at Dara'a. Otherwise it was back to the normal tasks of reconnaissance and occasional bombing for the 3rd Bölük's scattered detachments. These were also becoming increasingly dangerous as the soldiers of the Arab Revolt became more skilled at shooting at Ottoman aeroplanes. On 4 February 1918 Rumpler number R 1837, flown by Sgt. Ismail Zeki and observer Lt. Lutfullah, was hit by ground fire and had to make a forced landing. Zeki was captured and handed over to the British, but only after he had set fire to his aeroplane.

When Enver Pasha, now virtually the dictator of the Ottoman Empire, heard about this he sent several gold coins to Ismail Zeki's family. When Zeki himself was interrogated by the British, he exaggerated Ottoman air strength, stating that at Ma'an there were three operational Rumplers while at Amman there were supposedly seven operational aircraft; namely two Albatros scouts, two Halberstadt scouts, two AEGs and a Fokker. Further sorties were flown throughout February and into March, some to Aqaba in the south, others towards Amman and the Hawran in the north. In the meantime, the British took control of Jericho in the Jordan Valley.

Two Rumplers flew on 2 March. However, Rumpler number R

1847, which was flown by civilian volunteer Hüsayin Hüsnü with an otherwise unrecorded observer named Tewfiq – himself perhaps another civilian volunteer – had to make a forced landing. Their aeroplane seems to have been damaged as it was not mentioned again. The following day a British aeroplane dropped a small package with a message confirming Ismail Zeki's capture.

Nevertheless, there was still plenty of fight in the Ottoman Army which, between 21 March and 2 April, defeated a British thrust across the Jordan valley towards Amman which had intended to link up with the Arab Northern Army. Indeed the Ottoman defence of Syria looked as if it might hold. Despite fuel supplies becoming ever more intermittent, 3rd Bölük's Rumplers continued to fly reconnaissance and bombing sorties throughout March. Number R 2627 was usually based outside Damascus where it was mostly flown by civilian pilot Hüseyin Hüsnü. Number R 2628 was also based outside the Syrian capital, R 1150 was based at Ma'an while R 1847 and R 2626 were still at Dara'a. The last reconnaissance sortie of March was flown by Lt. Emin Nihat and the observer named Tevfik in Rumpler R 1150 on the 29.

The Ottoman high command now decided to concentrate its limited number of aeroplanes to face another anticipated British thrust across the Jordan. Qatrana, 100 km. south of Amman, was selected as a possible place to assemble these aeroplanes which would be drawn not only from the scattered 3rd Bölük and smaller 4th Bölük at Dara'a, but also from the proposed German 305th Pasha Squadron. Some of the 3rd Bölük's aeroplanes were apparently sent to Qatrana but were soon moved to Amman, along with part of the 4th Bölük. In the event the second British offensive towards Amman did not take place until 25 September and would again be driven back. Meanwhile the 3rd Bölük requested replacements for it old and battered ex-300th Pasha Squadron Rumpler C.Is. However, a plan to fly the unit's remaining Albatros C.III (number AK 30) out of Madina to Syria proved impractical. Consequently, reconnaissance and bombing sorties against the forces of the Arab Revolt continued in April, sometimes with great ferocity.

April 1918 saw the Rumplers of the 3rd Bölük still flying reconnaissance and the occasional bombing missions against the Arab Northern Army in Jordan. Civilian pilot Hüseyin Hüsnü was clearly now a fully integrated member of the unit and flew some of the most demanding sorties to the east and west of the Hijaz Railway line. In the middle of the month Ma'an was besieged by the Arab Army which soon had the aerodrome within its artillery range. Nevertheless, the Rumpler crews continued to fly reconnaissance sorties to check on the Arab Army's positions, as did their colleagues at other aerodromes and the 4th Bölük with its AEG C.IVs at Amman and Dara'a.

On 24 April news was received that a train from Madina had been attacked by a detachment of the Arab Army. So the following day Rumpler number R 2626 flew to investigate and found that the ambush had occurred near the 18th century Ottoman Hajj (Pilgrim Road) fortress at al-Hasa. Arab forces under Emir Faisal now shelled Ma'an regularly. The Emir also sent the Ottoman garrison a message which was dropped by a British aircraft on 29 April. It warned that, if the Ottoman troops did not surrender, the town would be sacked – and worse. The demand was unanimously refused by the officers in Ma'an and a message to that effect was dropped on the Emir's headquarters by Lt. Emin Nihat flying Rumpler R 1150. For several days, the Arab Northern Army launched violent assault upon Ma'an and their fire made it impossible for the Ottoman aeroplanes to take off. It was now also impossible for supplies to be sent along the Hijaz Railway from Damascus to the besieged garrison in Madina.

On 8 May the local Ottoman commanders decided to send an aeroplane to Damascus to explain the gravity of their situation in both Ma'an and Qatrana, and to request help from Fourth Army Headquarters. So, Lt. Nihat took off under fire in Rumpler R 1150. This left Capt. Izzettin, who had been sent from Izmir to take command of the squadron late in 1917, with only two remaining aeroplanes at Ma'an. When Nihat landed at Amman the more than twenty repair patches in the fabric of his Rumpler caused Capt. Zelich, Commanding Officer of the Fourth Army's Aircraft Park to exclaim, "Scrap this aeroplane, it is unserviceable!" As a replacement, Lt. Nihat was given one of the newly formed 14th Bölük's AEG C.IVs and was ordered to remain with that unit. On 24 May he and a German observer named Lt. Wagner took part in a large-scale bombing raid by the 14th Bölük, plus some aeroplanes from the German 300th Pasha Squadron, aimed against the British aerodrome near Jerusalem.

The Ottoman situation in Syria was now desperate and so the High Command decided to concentrate its remaining air strength in Amman. This consisted of the 3rd, 4th and 14th squadrons, while Capt. Zelich had the oldest aeroplanes sent to Rayaq in Lebanon. There Sgt. Hasan Fehmi was able to replace the worn control cables of Rumpler R 2626 with those from a damaged AEG C.IV. He then flew the Rumpler back to Amman from where he continued to fly reconnaissance sorties during June. On 30 June 1918 Sgt. Hasan Fehmi even bombed the enemy in this venerable old Rumpler. He flew again in the same aeroplane on 1, 2 and 8 July but on 4 August Rumpler C.I number R 2626 was damaged.

By this time the men of the four Ottoman squadrons in Syria and Jordan had been sent to Rayaq in Lebanon, where they spent the rest of August somewhat optimistically awaiting new machines. In fact, the final British assault and breakthrough came first, with a decisive victory at the Battle of Megiddo in northern Palestine between 19 and 25 September. Amman fell on 25 September, Dara'a on 27 September, followed by Damascus on 1 October when troops of the Arab Northern Army entered the Syrian capital just ahead of their Australian allies.

Meanwhile, the Ottoman air units accompanied the shattered Ottoman Army northwards, hoping to be able to reform and re-equip. Instead armistice negotiations started and a ceasefire was agreed on 30 October, ending the Ottoman Empire participation in the First World War. Far to the south and now completely isolated, Fahrettin Pasha, the Ottoman commander in Madina refused to surrender until 10 January 1919 because he did not recognize the new Ottoman government's right to abandon control of Islam's Second Holy City. In anticipation of the plundering which would follow a surrender, Fahrettin Pasha had also secretly managed to get the sacred relics of the Prophet Muhammad and his Companions sent to safely in Constantinople (soon to be renamed Istanbul) where they remain to this day.

BIBLIOGRAPHY

PUBLISHED BOOKS

Abbas Halim, Nevine, *Diaries of an Egyptian Princess* (Cairo: 2009).

Abdel Malek, A., *Egypt: Military Society* (New York: 1968).

Anon., *A Brief Record of the Advance of the Egyptian Expeditionary Force under the Command of General Sir Edmund H.H. Allenby, G.C.B., G.C.M.G. July 1917 to October 1918* (2nd. ed., London: 1919).

Anon., *A summary of the war diary of the Aden Troop war 1914-1918* (Allahabad: 1921)

Be’eri, E., *Army Officers in Arab Politics and Society* (New York: 1970).

Berque, J., *Egypt, Imperialism and Revolution* (London: 1972).

Bidwell, R., *The Two Yemens* (London: 1983).

Boudot-Lamotte, A., *Aḥmad Šawqī, L’homme et l’oeuvre* (Damascus: 1977) [in French].

Bullock, D.L., *Allenby’s War: the Palestine-Arabian campaign 1916-1918* (London: 1988).

Butt, G., *History in the Arab Skies. Aviation’s Impact on the Middle East* (Nicosia: 2011).

Caroselli, F.S., *Ferro e Fuoco in Somalia* (Rome: 1931) [in Italian].

Catellani, R., & G.C. Stella, *Soldati d’Africa. Storia del Colonialismo Italiano e delle Uniformi per le Truppe d’Africa del Regio Esercito Italiano. Volume terzo 1914-1929* (Parma: 2006) [in Italian].

Cross & Cockade (credited to the membership), *Lawrence of Arabia & Middle East Air Power* (Woodhall Spa: 2016).

De Gayffier-Bonneville, A-C., *L’échec de la monarchie égyptienne* (Cairo: 2010).

Di Martino, B., *I Dirigibili Italiani nella Grande Guerra* (Rome: 2005) [in Italian].

Dresch, P., *A History of Modern Yemen* (Cambridge: 2000).

Edroos, S.A. El-, *The Hashemite Arab Army 1908-1979* (Amman: 1980).

Elgood, P.G., *Egypt and the Army* (Oxford: 1924).

Elgood, P.G., *The Transit of Egypt* (London: 1928).

Falls, C., & A.F. Becke, *Military Operations: Egypt and Palestine from June 1917 to the End of the War* (London: 1930).

Jabr ‘Ali Jabr [Gabr Ali Gabr], *Al-Quwat al-Jawiyah bayn al-Siyāsat al-Miṣrīyat wa’l-Isrã’liyat, al-jazz’ al-āwal 1922-1952* [The Air Force between Egyptian and Israeli government policies, vol. 1, 1922-1952] (Cairo: 1993) [in Arabic].

Gavin, R.J., *Aden under British Rule 1839-1967* (London: 1975).

Goldschmidt, A., *Biographical Dictionary of Modern Egypt* (London: 2000).

Jones, H.A., *The War in the Air, vol. V* (Oxford: 1935).

Kansu, Y., S. Şensöz & Y. Öztuna, *Havacılık Tarihinde Türkler, 1* (Ankara: 1971) [in Turkish].

Kearsey, A., *The Operations in Egypt and Palestine, 1914 to June, 1917* (Aldershot: 1929).

Labīb, Alī Muḥamad, *Al-Quwat al-Thalāthah* [The Third Arm] (Cairo: 1977) [in Arabic].

Lax, M., M. O’Connor & R. Vann, *Wings over Mesopotamia. Air War in Iraq 1914-1918* (London: 2017).

Lioy, V., *L’Italia in Africa – L’Opera dell’Aeronautica* [2 vols.] (Rome: 1964-65) [in Italian].

Macmunn, G., & C. Falls, *Military Operations: Egypt & Palestine: From the Outbreak of War with Germany to June 1917* (London: 1928).

Macro, E., *Yemen and the Western World* (London: 1968).

Magrin, G., *I palloni della guerra. Storia ed evoluzione dei mezzi di volo dalla Grande Guerra al 1930* (Udine: 1999) [in Italian].

Manchon, J-B., *L’aéronautique militaire Française outre-mer 1911-1939* (Paris: 2013) [in French].

Manifold, M.G., & W. Bowmen, *An Outline of the Egyptian and Palestine Campaigns, 1914 to 1918* (London: 1928).

Marben, R. (tr. C.W. Sykes), *Zeppelin Adventures* (London: no date, c.1932).

McGregor, A., *A Military History of Modern Egypt. From the Ottoman Conquest to the Ramadan War* (Westport: 2006).

Morareau, L., R. Feuilloy, J-L. Courtinat, T. Le Roy & J-P. Rossignol, *L’Aviation Maritime Française pendant la Grande Guerre (hydravions et avions)* (Paris: 1999) [in French].

Morris, A., *The Balloonatics* (London: 1970).

Neumann, G.P., *Die gesamten deutschen Luftstreitkräfte im 1. Weltkrieg* (Berlin: 1920; reprinted Bremen: 2011) [in German].

Nikolajsen, O., *Ottoman Aviation 1909-1919* (2nd. ed., 2012; PDF/CD publication).

Pedriali, F., *L’Aeronautica Italiana nelle Guerre Coloniali. Libia 1911-1936* (Gaeta: 2008) [in Italian].

Pletschacher, P., *Die Königlich Bayerischen Fliegertruppen 1912–1919* (Planegg 1992) [in German].

Porro, F., *La Guerra nell’Aria 1915-1918* (Milan: 1935) [in Italian].

Pye, E., *Prisoner of War 31.163 Bedros M. Sharian* (New York: 1938).

Ramadan, Abd al-Azim, *Al-Jaysh al-Misri fi al-Siyasat 1882-1936* [The Egyptian Army in Government Policy 1882-1936] (Cairo: 1977) [in Arabic].

RAMC Serjeant-Major (Anon.), *With the R.A.M.C. in Egypt* (London: 1918).

Robinson, D.H., *The Zeppelin in Combat* (Atglen: 1994).

Sabit, Adil, *A King Betrayed* (London: 1990).

Salti, P., *The Royal Jordanian Air Force* (Amman: 2007).

Seward, D., *Wings over the Desert* (Yeovil: 2009).

Shawqī, Aḥmad (ed. M.H. Heikal), *Al-Shawqīyāt* (Cairo: 1970) [in Arabic].

Theobald, A.B., *‘Ali Dinar Last Sultan of Darfur 1898-1916* (London: 1965).

Tugay, E.F., *Three Centuries: Family Chronicles of Turkey and Egypt* (London: 1963).

Turner, C.C., *Aircraft of Today*, London: 1917).

V.V. A.A. [initials only published], *La historia de la Aviación Española* (Madrid: 1988) [in Spanish].

Vatikiotis, P.J., *Nasser and his Generation* (London: 1978).

Wedgewood Benn, W., *In the Side Shows* (London: 1919).

Weldon, L.B., *Hard Lying, Eastern Mediterranean 1914-1919* (London: 1926).

JOURNAL ARTICLES AND BOOK CHAPTERS

Anon., “A Queer War”. *Journal of Royal Artillery*, 9 (July 1927) pp. 257-269.

Bay, Dr, “Note sur l’aviation”, *Bulletin de l’Institut Égyptien* (1910) pp. 12-22 [in French].

Couret, R., “L’Embuscade de Hassi-Tanezrouft et la mort du brigadier Paul Béchet au Fezzan (1916-1918)”, *Revue Historique de l’Armée*, 23/4 (Novembre 1967) pp. 97-106 [in French].

Dolz, V.G., “La Escuadrille de Zeluán”, *Aeroplano*, 23 (2005) pp. 4-10 [in Spanish].

Ferry, J., “Le Sahara dans la Guerre 1914-1918”, *Revue Historique de l’Armée*, 23/4 (Novembre 1967) pp. 85-96 [in French].

Gröschel, D., & J. Ladek, “Wings of the Sinai and Palestine”, *Over the Front*, 13/1 (Spring 1998) 3–65.

İhsanoglu, E., Aviation: The Last Episode in the Ottoman Transfer of Western Technology", *Journal of the Japan-Netherlands Institute*, 6 (1996) pp. 189-219.

Join, Y., "Hedjaz 1916-1918. Les Compagnos français de Lawrence", *Revue Historique de l'Armée*, 23/4 (Novembre 1967) pp. 107-121 [in French].

Lawson, F.H., "Reassessing Egypt's Foreign Policy during the 1920s and 1930s", in A. Goldschmidt (et al. eds.), *Re-Envisioning Egypt 1919-1952* (Cairo 2005) pp. 46-67.

Lévi-Provençal, "'Abbās b. Firnās", *Encyclopedia of Islam, vol. 1* [2nd edit.] (Leiden 1960) p. 11.

Luft, J.P., "The Iranian Nationalists in Istanbul during World War I", in C. Hillenbrand (ed.), *Studies in Honour of Clifford Edmund Bosworth, volume II. The Sultan's Turret: Studies in Persian and Turkish Culture* (Leiden 2000) pp. 246-271.

Neulen, H.W., & C. Cony, "Les aigles du Kaiser en Terra Sainte", *Avions*, 89 (Aug. 2000) pp. 34-43 [in French].

Oberling, P., "A History of Turkish Aviation, Part 1: Aerostation amongst the Ottomans", *Archivum Ottomanicum*, 9 (1984) pp. 126-162.

Pernot, F., & M-C. Villatoux, "L'aéronautique militaire au Maroc avant 1914", *Revue historique des armées* (May 2000) pp. 89-97 [in French].

Reiller, P-P., "L'histoire de l'aviation au Maroc", *Aviasport*, 88-89 (Juin-Août 2012) pp. 64-70 [in French].

Sánchez Mendez, J., & A. Kindelán Camp, "La Aviación Militar Española en el Campaña de Marruecos (1909-1927)", *Aeroplano*, 29 (2011) pp. 67-105 [in Spanish].

Vann, R., & M. O'Connor, "Persian Adventure" [aerial aspects of the Dunsterforce campaign], *Cross & Cockade International Journal*, 21 (1990) pp. 210-215.

Vann, R., & C. Waugh, "Overseas and United Kingdom Presentation Aircraft 1914-1918", *Cross & Cockade Great Britain Journal*, 15 (1983) pp. 49-105 [entire part 2 of journal].

White, L., "Elmer of Malmesbury, An Eleventh Century Aviator. A Case Study of Technological Innovation, its Context and Tradition", *Technology and Culture*, 2 (1961) pp. 97-111.

ONLINE SOURCES

Anon., *Us de la aviación en la guerra de Marruecos, 1909-1927* (Madrid 2002).

Butt, G., Frank *McClean: Forgotten pioneer of the sky* (BBC News website, 23 Feb. 2013).

Fecitt, H., *Fighting the Aliab-Dinka, Southern Sudan, November 1919-May 1920* (25 Feb. 2011).

Teller, M., "Short S.80 flight up Nile in 1914: The three-month flight along the Nile" (BBC News website, 5 Jan. 2014).

UNPUBLISHED SOURCES

Agami, G., Information on his grand-father, Captain Iskander Abdo Agami of the Egyptian Army Royal Medical Corps (personal communication 1998-2000).

AIR 29/789, Documents relating to RFC/RAF establishments at Abu Qir [Aboukir] (National Archives, London).

Anon., "A Turk who attempted to fly in Byzantium (1159)" (display in Hava Kuvvetleri Müzesi [Air Force Museum], Istanbul 2012).

Anon., "First endeavours of flying among Turks (1010)" (display in Hava Kuvvetleri Müzesi [Air Force Museum], Istanbul 2012).

Bardai, Nour, Translated extracts from various untitled & undated Arabic published sources {books, newspapers, magazines & journal articles] (personal communications, 2005-2018).

Coleman, C., Information on various regular and irregular Arab forces during the First World War (personal communication, 1988-2005).

Collett, H.R.P., "A Balloonatic in Palestine" (copy of a typewritten original manuscript, Imperial War Museum Library, London).

Dye, P.J., "Air Power's Midwife – Logistics Support for Royal Flying Corps Operations on the Western Front 1914-1918" (Ph.D. thesis, Birmingham University 2014).

FO 141/469/5 & 6, Documents relating to Egyptian Khedival and state interests in Thasos and Kavalla (National Archives, London).

Yilmazer, B., Further information on the Ottoman air forces (private communication 1999).

Zaky, Abd al-Rahman, "An Adventurous Event & Career" [outline of the life of General Aziz al-Masry] (personal communication 1977).

ABOUT THE AUTHORS

DR DAVID C NICOLLE

Dr David C Nicolle is a British historian specialising in the military history of the Middle Ages, with special interest in the Middle East and Arab countries. After working for the BBC Arabic Service, he obtained his MA at SOAS, University of London, followed by a PhD at the University of Edinburgh. He then lectured in art history at Yarmouk University in Irbid, Jordan. Dr Nicolle has published over 100 books about warfare ranging from Roman times to the 20th century, mostly as sole author. He also co-authored the 'Arab MiGs' series of books which covered the history of the Arab air forces at war with Israel from 1955 to 1973. Furthermore, he has appeared in several TV-documentaries, and has published numerous articles in specialized press. This is his first instalment for Helion's @War series.

AIR VICE MARSHAL GABR ALI GABR

The late Air Vice Marshal Gabr Ali Gabr, PhD (EAF, ret.) served as a pilot of De Havilland Vampire fighter jets during the Suez War of 1956. After concluding higher military education at the Air Warfare Institute in 1960, he served as Instructor in Air Tactics at the Air Warfare Institute in 1962-1964 and 1966-1967, as Staff Officer during the June 1967 War, Chief of Operational Training Branch 1968-1973, and as Chief of an Operations Group during the October 1973 War with Israel. After serving as Instructor in Art of Operations and as Chief of Air Force Chair at the High War College from 1977 until 1982, and receiving his PhD at Nasser High Academy in 1989, he moved into writing and published seven books and dozens of studies and articles on history of air warfare in Egypt and abroad. Air Vice Marshal Gabr died on 29 May 2015.